Anita C. Keller · Robin Samuel
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Psychological, Educational, and Sociological Perspectives on Success and Well-Being in Career Development

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Editors
Anita C. Keller
Department of Psychology
University of Bern
Bern, Switzerland

Robin Samuel
Manfred Max Bergman
Department of Social Sciences
University of Basel
Basel, Switzerland

Norbert K. Semmer
Department of Psychology
University of Bern
Bern, Switzerland

Swiss National Center
for Affective Sciences
Geneva, Switzerland

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Contents

Contributors

Andrea E. Abele-Brehm Department of Psychology, University Erlangen-Nürnberg, Erlangen, Germany

Sybille Bayard Jacobs Center for Productive Youth Development, University of Zürich, Zürich, Switzerland

Manfred Max Bergman Department of Social Sciences, University of Basel, Basel, Switzerland

Marlis Buchmann Jacobs Center for Productive Youth Development, University of Zürich, Zürich, Switzerland

Barbara Duc Swiss Federal Institute for Vocational Education and Training, Renens, Switzerland

Achim Elfering Department of Psychology, University of Bern, Bern, Switzerland

Swiss National Center for Affective Sciences, Geneva, Switzerland

Laurent Filliettaz Faculty of Psychology and Educational Sciences, University of Geneva, Geneva, Switzerland

Philipp Fischer Jacobs Center for Productive Youth Development, University of Zürich, Zürich, Switzerland

Gudela Grote Department of Management, Technology, and Economics, ETH Zürich, Zürich, Switzerland

Wolfgang Kälin Department of Psychology, University of Bern, Bern, Switzerland

Swiss National Center for Affective Sciences, Geneva, Switzerland

Anita C. Keller Department of Psychology, University of Bern, Bern, Switzerland

Nadia Lamamra Swiss Federal Institute for Vocational Education and Training, Renens, Switzerland

Stefano A. Losa Faculty of Psychology and Educational Sciences, University of Geneva, Geneva, Switzerland

Jeylan T. Mortimer Department of Sociology, University of Minnesota, Minneapolis, MN, USA

Robin Samuel Department of Social Sciences, University of Basel, Basel, Switzerland

Norbert K. Semmer Department of Psychology, University of Bern, Bern, Switzerland

Swiss National Center for Affective Sciences, Geneva, Switzerland

Jeremy Staff Department of Sociology, Pennsylvania State University, University Park, PA, USA

Monika Staffelbach Jacobs Center for Productive Youth Development, University of Zürich, Zürich, Switzerland

Franziska Tschan Institut de Psychologie du Travail et des Organisations, Université de Neuchâtel, Neuchâtel, Switzerland

Swiss National Center for Affective Sciences, Geneva, Switzerland

Cécile Tschopp Department of Management, Technology, and Economics, ETH Zürich, Zürich, Switzerland

Mike Vuolo Department of Sociology, Purdue University, West Lafayette, IN, USA

Editor Biographies

Anita C. Keller, Dr., is a postdoc researcher at the University of Bern (Department of Psychology). She graduated in Psychology from the University of Bern and worked as a researcher at TREE (Transition from Education to Employment Project, University of Basel) and the University Hospital Basel before she joined the University of Bern. Currently she manages a Swiss Science Foundation project (entitled Individual Trajectories of Working Life in Switzerland) and projects with Health Promotion Switzerland aiming at preventing stress at work. Her main research interests relate to work design, stress at work, success at work, attitudes, well-being, and the self. A special interest lies on the interplay of work characteristics, well-being, and the self over longer time spans and the meaning of changes in working conditions for employees.

Robin Samuel, Dr., is currently a visiting scholar at the University of Cambridge (Department of Sociology), an Honorary Fellow at the University of Edinburgh (School of Social and Political Science), and an affiliated researcher at the University of Basel (Social Research and Methodology Group). From 2012 to 2013, he was a visiting scholar at Stanford University (Stanford Center on Poverty and Inequality). He graduated in sociology, sustainable development, and modern history from the University of Basel in 2008, worked as a researcher with Prof. Dr. M.M. Bergman at the Chair of Social Research and Methodology (University of Basel) 2009–2012, and obtained a Ph.D. in sociology in 2012. His current research addresses: (i) the role of cognitive and noncognitive characteristics for labor market outcomes and social mobility, (ii) over- and underwork against the backdrop of shifts in skill supply and demand, (iii) the gendered interplay between success and well-being, (iv) how habitual factors affect individual energy consumption patterns, and (v) the application of Bayesian statistics to fallacies.

Manfred Max Bergman, Ph.D., is Professor of Social Research and Methodology at the University of Basel, Switzerland. He obtained a B.A. from the University of California, a Diplôme d'études supérieures from the University of Geneva, and a Ph.D. from the Faculty of Social and Political Sciences at the University of Cambridge, England. Concurrent to his chair at the University of Basel, he holds

a fellowship at the Centre for Research on Evaluation, Science and Technology (CREST) as well as the African Doctoral Academy at Stellenbosch University in South Africa. He is currently working on sustainable development in association with education, employment, and organizations.

Norbert K. Semmer, Ph.D., is Professor Emeritus of the Psychology of Work and Organizations at the University of Bern, Switzerland. He studied psychology in Regensburg (Germany), Groningen (The Netherlands), and Berlin (Germany). His major areas of interest relate to: (1) stress at work, (2) efficiency in work behavior, and (3) human error and its implications for quality and safety. He is Co-Principal Investigator of a large longitudinal study on the transition of young people from vocational training to work ("Work Experience and Quality of Life in Switzerland: Work, Stress, and Personality Development; ÆQUAS"). Semmer has recently developed a concept that focuses on stress as offense to self.

Chapter 1
Introduction

Robin Samuel, Manfred Max Bergman, Anita C. Keller, and Norbert K. Semmer

1.1 Introduction

Understanding what constitutes success is a complex endeavour. In psychology, success often refers to attaining a personally meaningful goal, such as being in a relationship, completing a task or securing a reasonable income (Diener and Biswas-Diener 2002; Lewin 1936; Locke and Latham 1990). In sociology, success may be understood as having attained positions of higher social status (Merton and Kitt 1950; Merton 1968), prestige or a desired lifestyle (Bourdieu 1979; Treiman 1977). Moreover, each of these disciplines are underpinned by particular concepts such as 'career success' and 'work success', rendering it difficult to clearly define and thus operationalize the boundaries of 'success'.

However, several academic disciplines share established conceptual frameworks for well-being. Veenhoven (1984) defines well-being as "the degree to which an individual judges the overall quality of his life-as-a-whole favorably. In other words: how well he likes the life he leads" (1984, p. 22). Well-being is a subjective evaluation of one's life, consisting of cognitive and affective components (Diener 1984; Tatarkiewicz 1976; Veenhoven 1984). The former may refer to a global assessment of one's life or to specific domains, such as, health or career development, and the latter to positive and negative affect, which touch on the frequency of experiencing positive and negative emotions (Bradburn 1969).

R. Samuel (✉) • M.M. Bergman
Department of Social Sciences, University of Basel, Petersgraben 11, 4051 Basel, Switzerland
e-mail: robin.samuel@unibas.ch

A.C. Keller
Department of Psychology, University of Bern, Fabrikstrasse 8, 3012 Bern, Switzerland

N.K. Semmer
Department of Psychology, University of Bern, Fabrikstrasse 8, 3012 Bern, Switzerland

Swiss National Center for Affective Sciences, Geneva, Switzerland

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While individual characteristics such as self-esteem or an outgoing and open personality may contribute to the attainment of success (Jencks 1979), an increase of interest in well-being as a predictor of success has also been noted (Diener 2009). The relationship between success and well-being is often conceived of as reciprocal, where well-being fosters success and, simultaneously, success fosters well-being (Lyubomirsky et al. 2005; Samuel et al. 2013).

This collection brings together researchers from different disciplines who share a common interest in how success and well-being relate in early career development. The complexity of this relationship calls for in-depth analyses that transcend disciplinary boundaries. While multi-, inter-, cross-, and trans-disciplinary research is often encouraged, it is also sometimes referred to as a 'career killer'. However, the editors and contributors to the *International Conference on Success and Well-Being in Education and Employment*, held at the University of Basel, Switzerland, in 2011, found such an approach fruitful – hence the decision to jointly edit this volume.

The intention here is to review and consider the current state of research on the overlap between success and well-being from several perspectives, such as between different institutional contexts, between longitudinal and cross-sectional research designs and, finally, differences in the trajectories of early careers entrants and those more established in their careers. Moreover, it aims to provide a conceptual overview of success and well-being as developed in psychological research, complemented and strengthened through approaches in education and sociology. Furthermore, 'career success' as a measure of success is challenged through recourse to longitudinal research findings. Several chapters will focus explicitly on transitions between education and employment, for example, school-to-work transitions and drop-out rates. In analyzing transitions, emphasis is placed on the value of individual resources, such as self-regulatory strategies and self-esteem, to cope with challenging periods of the employment or education biography.

The organizing principle of this edited series is to follow the career pathway and, to this end, starts with a theoretical contribution on career success and its implications for life satisfaction. In "The Influence of Career Success on Subjective Well-Being" Andrea E. Abele-Brehm discusses the many ways success might impact on how people evaluate their lives, particularly with regard to the moderating and mediating roles of goals, personality, as well as working conditions. She finds that objective career success has only a small positive effect on life satisfaction, whereas subjective career success is strongly associated with life satisfaction. Interestingly, the inverse relationship might be even stronger, specifically that it is life satisfaction that leads to career success. Abele-Brehm concludes that striving for career success may enhance life satisfaction.

Success and well-being in education is covered in three of the chapters. These detailed studies explore educational success and failure. Firstly, Bayard, Staffelbach, and Buchmann examine the "Upper-Secondary Educational Trajectories and Young Men's and Women's Self-Esteem Development in Switzerland", focusing on gender effects of development after educational failures and take into account a stratified educational system and social dynamics. Using longitudinal data, Bayard and

colleagues find women's self-esteem to be more affected by educational attainment than men's. Women's self-esteem seems to depend to a greater extent on educational success and failure. Secondly, using an innovative longitudinal qualitative methodology, Duc and Lamara analyze "Young People's Progress After Dropout from Vocational Education and Training: Transitions and Occupational Integration at Stake. Longitudinal Qualitative Perspective". They show how young people who do not experience smooth school-to-work transitions fare in terms of well-being after leaving a vocational program early. Moreover, they describe the varying attitudes concerning successful labor market participation held by young dropouts. Thirdly, Losa, Duc, and Filliettaz in their chapter "Success, Well-Being and Social Recognition: An Interactional Perspective on Vocational Training Practices" use audio-video data to study learning trajectories and how they are situated within social interactions. They describe two forms of participation and how these are associated with successful and unsuccessful transitions.

In "Agentic Pathways toward Fulfillment in Work", Vuolo, Staff, and Mortimer focus on psychological dispositions and behaviors in post-adolescence that foster long-term work-related success and fulfillment. Using longitudinal data from the Minnesotan Youth Development Study they find that those who report individual-agency related attitudes and behaviors towards 'striving' had obtained jobs in early adulthood marked by higher socioeconomic status and intrinsic rewards.

The two subsequent chapters focus on success and well-being at work. They scrutinize challenges with regard to job insecurity and attainment of those characteristics that will enhance employment opportunities. The mediating role of subjective career success is examined by Tschopp and Grote in "The How and Why of the Relationship Between Job Insecurity, Subjective Career Success, and Turnover Intention". The authors report a direct positive effect of job insecurity on turnover intention as well as an indirect effect through lowering subjective career success. Kälin, Keller, Tschan, Elfering, and Semmer follow the trajectories of young workers in five occupational categories over their first 10 years in the labor market ("Work Experiences and Well-Being in the First Years of Professional Work in Switzerland: a Ten-Year Follow-Up Study"). Overall, the authors find that even though task-related stressors increased over time, available resources at work tended to increase as well, supported by higher levels of well-being and personal resources.

In the final chapter, Keller, Semmer, Samuel, and Bergman provide an overview of the "Meaning and Measurement of Well-Being as an Indicator of Success". It covers current concepts of well-being and success, specifically work and career success, how they are measured, and the interconnections between success and well-being in both theory and empirical research.

While this volume addresses a number of research questions, some problems remain to be addressed by future research. These can be divided into theoretical and methodological challenges.

Theoretically, most of the research presented here conceives of success as attaining goals by means of personal characteristics and resources that are valued and rewarded differently, depending on the context (for example, an outgoing

personality might support becoming a successful manager [Jackson 2006]). Alternatively, success might be thought of as an adaptation to norms (Blair 2001). The contributions here have focused on positive relationships and gain spirals, where success fosters well-being and vice versa. However, well-being and success may be theorized as relative concepts. Increasing one's own well-being may be to the detriment of someone else's, as part, for example, of "keeping up with the Joneses" (Boyce et al. 2010). In fact, some findings from social comparison theory have pointed to such a development (Buunk et al. 1990; Festinger 1954; Frieswijk et al. 2004; Gibbons and Buunk 1999; Michalos 1985). Furthermore, certain achievements may yield negative side effects, such as hostile reactions in social relationships (e.g., Heilman and Okimoto 2007), raising questions around the costs of success. These and similar issues may lead to rethinking models that consider the causes and effects of success and well-being.

Methodologically, some studies on reciprocal relationships do not seem to take possible endogeneity problems into account, especially simultaneity, which might have consequences on the bias levels of estimators. Factor scores might be endogenous with respect to other variables. Here researchers may benefit by borrowing from approaches in economics and sociology to deal with these challenges, as well as with individual heterogeneity (Hansen et al. 2004; Heckman et al. 2006). For example, non-random unmeasured differences among individuals in parameters of interests may be accounted for by using panel data and fixed effects estimation.

It is hoped that this collection will contribute to the understanding of the links between educational, occupational success and well-being. Finally, we hope to stimulate cross-cutting research that theory building around success and well-being deserves.

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Chapter 2
The Influence of Career Success on Subjective Well-Being

Andrea E. Abele-Brehm

2.1 The Influence of Career Success on Subjective Well-Being

Striving for happiness and subjective well-being is a major life goal (Diener and Biswas-Diener 2008; Fredrickson 2001; Gable and Haidt 2005). There are, however, different means for reaching this goal. People may look for pleasant experiences, for fun and variety (the "pleasant life"); they may seek responsibility, engagement, and dedication (the "engaged life"); and/or they may look for meaning and spirituality in order to feel happy (the "meaningful life"; Park et al. 2004). In Western societies, people often strive for success, especially success in their occupational career, in order to feel happy (Diener and Seligman 2004). But does success in one's occupational career indeed lead to life satisfaction and subjective well-being? The aim of the present paper is to discuss this issue. We will first give an overview of the conceptualization of subjective well-being and of career success and will then review the relevant research. The discussion will be centred on two issues: (a) what do we know; and (b) what are relevant future research questions.

2.1.1 Subjective Well-Being

Subjective well-being (SWB) is the summary term for a number of positive states an individual may experience. It is differentiated into a cognitive component and an affective component. Life satisfaction is the cognitive component of SWB and positive and negative affect are the affective components of SWB (Diener et al. 1999).

A.E. Abele-Brehm (✉)
Department of Psychology, University of Erlangen-Nürnberg, Bismarckstr. 6,
D-91054 Erlangen, Germany
e-mail: andrea.abele-brehm@fau.de

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Life satisfaction may be further distinguished into the cognitive appraisal of one's life overall versus the cognitive appraisal of specific domains of life. These domains have been conceptualized as intelligible regions of life experience (Campbell et al. 1976) such as, for instance, work, family, leisure, and friends. SWB – sometimes also denominated as happiness – is the combination of frequent positive affect, infrequent negative affect, and a high degree of life-satisfaction both generally and in the specific domains (Lyubomirsky et al. 2005).

Research on the determinants of SWB suggests that about half of its variance is attributable to genetic and temperament factors, whereas the other half is due to living conditions and to intentional activities (Lyubomirsky et al. 2005). The genetic and temperament factors determine a certain "set-point", i.e., a relatively stable subjective level of SWB (Headey 2010). This level changes in reaction to life events, however, it adapts to the set point after a while. The degree of stability of the set point varies with the specific component of SWB looked at. The set point of negative affectivity, for instance, is more stable than the set point of positive affectivity. Moreover, the set point of specific domains of life satisfaction varies more than the set point of global life satisfaction (Diener et al. 1999; Fujita and Diener 2005).

The political system, cultural values, income, education and health status are among the most important living conditions contributing to an individual's SWB (Andrews and Withey 1976; Susniene and Jurkauskas 2009). On an individual level, critical life events like marriage, unemployment, or the loss of a loved-one influence SWB (Diener and Biswas-Diener 2008).

Intentional activities contribute to SWB with up to 40 % of the variability in SWB (Lyubomirsky et al. 2005). Such behaviours aim at experiences of joy and fun; at experiences of sense and fulfilment; and at experiences of engagement and activity (Diener and Biswas-Diener 2008; Hefferon and Boniwell 2011).

2.1.2 Career Success

Career is both a descriptive term for an individual's occupational life course such as job changes, times of unemployment, relocations, promotions, times of further education, and so forth (Super 1990); and it is an evaluative term, meaning upward development, climbing up the career ladder, and generally a positive evaluation of one's career (Abele et al. 2011). A third meaning of career refers to how individuals make sense of their occupational development (Arthur et al. 2005; Hall 2002). *Career success has been defined* as "the real or perceived achievements individuals have accumulated as a result of their work experiences" (Judge et al. 1999, p. 621).

This distinction between description and evaluation as well as between *real* vs. *perceived* achievements reflects the old and important distinction between more *objective* and more *subjective* career success: Hughes (1937) defined objective career success as directly observable, measurable, and verifiable by an impartial third party. Salary, salary growth, status, and promotions are the most widely used

indicators of objective career success, because they can be directly measured and verified (Abele and Spurk 2009a, b; Heslin 2003, 2005; Judge et al. 1995; Ng et al. 2005; Spurk and Abele 2011). These indicators are assessed by means of work records or by asking the employees (Dette et al. 2004). Furthermore, they are "objective" in the sense of being socially shared.

Subjective career success, in contrast, was defined by an individual's reactions to and evaluations of his or her unfolding career experiences (Hughes 1937). These evaluations are further differentiated according to the standard of comparison, i.e., a self-referent standard, or an other-referent standard (Abele et al. 2011; Abele and Spurk 2009a; Heslin 2003, 2005; Turban and Dougherty 1994).

In self-referent subjective success an individual compares his/her career success relative to personal standards and aspirations. Job satisfaction or career satisfaction are often taken as criteria for subjective success from a self-referent perspective (Abele and Spurk 2009a; Judge et al. 1995; Ng et al. 2005). Some authors, however, have argued that satisfaction judgments should not be included into measures of subjective career success (Dette et al. 2004), because job satisfaction and career satisfaction may both be regarded as measures of career success and as measures of domain-specific life satisfaction.

In other-referent subjective career success an individual compares his/her career relative to a social standard, for instance a reference group, or a social norm. Heslin (2003) found that more than two-thirds of his respondents used other-referent standards in determining their subjective career success.

Career success, finally, is also a subjective construction, i.e., what the individual understands as career success. This understanding differs between people, between employments, between age groups, and between cultures. Dries et al. (2008), for instance, found that subjective conceptualizations of career success could be depicted in a two-dimensional space with the horizontal dimension labelled affect versus achievement and the vertical dimension labelled intra-personal versus inter-personal. Nine regions embedded in this structure denote different subjective meanings of career success such as performance, advancement, self-development, creativity, security, satisfaction, recognition, cooperation, and contribution.

The correlation between objective and subjective measures of career success is positive, but relatively small. A meta-analysis by Dette et al. (2004) revealed an estimated mean correlation of $\rho = .28$. Ng et al. (2005) also reported meta-analytic correlations of objective and subjective career success not higher than $\rho = .30$.

2.2 Influence of Career Success on Subjective Well-Being

How might career success – which is the result of an intentional activity – contribute to an individual's SWB? There are several processes conceivable that lead to higher SWB of successful compared to less successful persons. The experience of pride may be one process as career success is individual attainment and successful persons may feel proud. Successful people gain reputation in both

their occupational and private environment and high reputation may enhance their SWB. Career success also contributes to material independence and to a high standard of living and may indirectly contribute to SWB because successful persons more easily can live up to their desires than less successful persons.

However, there may also be instances in which career success reduces a person's SWB. Persons with a successful occupational career might, for instance, suffer from lack of time for their private live and may therefore be less happy than persons with an occupational career that leaves some time for other activities than work ("work-life balance", Eby et al. 2005). Highly successful persons also might become "workaholics" who spend most of their time working and who more or less lose interest in non-work-related activities (McMillan et al. 2010). Highly successful persons might experience a high degree of stress and might suffer from health problems.

These examples suggest that the relationship between career success and SWB is a complex one because both positive and negative consequences of career success are conceivable; because there are many mediators of the career success and SWB relationship, for instance emotional processes (such as pride versus sadness), material processes (such as "money can buy you everything"), or social processes (high reputation versus loneliness); and also because there are moderators of this relationship, for instance an individual's orientation to happiness, i.e., joy and fun versus activity and engagement versus sense and fulfilment (Park et al. 2004).

Compared to these theoretical prospects the empirical research on career success and SWB is still at the beginning. Most of these studies are concerned with the impact salary/money has on SWB. Moreover, there is also research on the influence of job- and career satisfaction on SWB. Possible negative consequences have barely been analysed.

2.2.1 Money and SWB

Many studies found small, but significant influences of money on life satisfaction: Saris (2001a, b) studied a sample from Russia and found a positive longitudinal impact of income on life satisfaction. Marks and Fleming (1999) studied an Australian sample and also reported positive longitudinal effects of income – as well as of occupational status – on life satisfaction. Meta-analyses by Pinquart and Sörensen (2000) and Howell and Howell (2008) also revealed positive, but small effects of income on life satisfaction. Even in very poor countries and for the poorest within these countries income correlated only $\rho = .36$ with life satisfaction (Howell and Howell 2008).

It has been discussed whether this relationship of higher life satisfaction with higher income is relative or absolute (Cummins 2000; Diener et al. 1993; Easterlin 1974). According to the so-called Easterlin paradox (Easterlin 1974) average happiness per country remains relatively constant over time despite major increases in income per capita. In contrast, within country SWB increases with an increase in

income. Hence, the impact of income on SWB seems to be *relative* and dependent on changeable standards. People compare their income with the income of others within their society (see above: other-referent standard) and then evaluate it on the basis of this comparison. The more positive this relative evaluation the higher should be the influence of money on life satisfaction. It follows that the same income may lead to satisfaction in one country and dissatisfaction in another country. The *absolute* argument, in contrast, states that money helps people to meet certain universal needs. Therefore increases in income should always have a positive impact on SWB. However, this impact should be the larger the lower a person's baseline for need fulfilment was. Diener et al. (1993) reported data in favour of the last-mentioned alternative. This absolute approach, however, cannot explain why the overall level of happiness in a country does not change with raising income.

2.2.2 *Moderators and Mediators of the Money – SWB Relationship*

As outlined above there are different moderators and mediators of the money – SWB relationship conceivable. We found two studies that were concerned with possible moderators, one with work orientations (Malka and Chatman 2003) and one with personality (Luhmann et al. 2011). Schyns (2001) and Johnson and Krueger (2006) analysed satisfaction with income as a mediator of the income – life satisfaction relationship. Finally, Boyce et al. (2010) were concerned with the mediating influence of a person's income rank.

Malka and Chatman (2003) studied the moderating influence of work orientations. They distinguished between extrinsic and intrinsic work orientations. Persons with more extrinsic work orientations highly value "good salary and benefits" or "having the material possessions and lifestyle you desire". Persons with more intrinsic work orientations highly value "work that allows you to make full use of your abilities" or "work that stimulates your intellectual growth". These work orientations were measured in a sample of students enrolled in an MBA program. About 4 years later these persons were again contacted. They were asked to report their current income and to answer questions referring to life satisfaction, positive and negative affect as well as job satisfaction. The data revealed that work orientation was indeed a moderator of the income – SWB relationship. People with high extrinsic work orientation showed higher life satisfaction with more income, whereas people with high intrinsic work orientations showed lower life satisfaction with more income. Interestingly, positive affect was only slightly influenced and negative affect was not influenced at all by income and work orientations.

Luhmann and colleagues (2011) studied the moderating influence of stable individual differences on the relationship between income and life satisfaction (also income and affective well-being) and found that personality is not only

correlated with SWB (see above: set point theory) but also with income. Hence, it seems to be a mediator of the SWB – income relationship. Moreover, these authors also analysed the relationship between changes in income and life satisfaction/affective well-being and found that transient changes in income led to transient changes in SWB.

Schyns (2001) and Johnson and Krueger (2006) analysed income and life satisfaction by simultaneously considering the respondents' satisfaction with their income. They found partial (Schyns 2001) or even full (Johnson and Krueger 2006) mediation, i.e., if satisfaction with one's income was considered the relationship between income and life satisfaction became smaller (Schyns 2001) or even disappeared (Johnson and Krueger 2006).

Boyce and colleagues (2010) argued that people gain SWB from occupying a higher ranked position within an income distribution. Analysing data from the British Household panel (Taylor et al. 2010) they found that income rank within a reference group (for instance, gender, age, geographical region, education level) was a better predictor of SWB than absolute income. They, hence, did not directly measure a mediator but their data suggest that comparison processes are in fact mediators. People compare their income with a relevant reference group and as a result of this comparison process they experience more or less SWB.

2.2.3 Subjective Career Success and SWB

Numerous studies have been concerned with the relationship of job satisfaction and career satisfaction with SWB. Job satisfaction relates to the evaluation of a person's present occupation and position. Career satisfaction relates to the evaluation of a person's career so far. As outlined above they are both conceivable as examples of self-referent subjective career success and also as specific domains of a person's life satisfaction. It is therefore not astonishing that measures of job satisfaction, career satisfaction and life satisfaction are positively correlated as has been shown by Rain and colleagues (1991) or Tait and colleagues (1989). Lounsbury et al. (2004) found that career satisfaction is positively correlated with life satisfaction. This correlation remained significant when relevant personality variables (like extraversion or neuroticism) were controlled for, hence, showing that the relationship is not just due to some "third" variables like personality. More interestingly, Judge and Watanabe (1993) revealed a longitudinal effect of job satisfaction on life satisfaction (similarly, Schmitt and Mellon 1980).

Several studies analyzed the job satisfaction/career satisfaction – SWB relationship by simultaneously considering further sources of life satisfaction. Hart (1999), for instance, tested the influence of job satisfaction on overall life satisfaction while also considering personality, work and non-work experiences and domain satisfactions. This author found that job satisfaction had an influence on life satisfaction. However, the influence of job satisfaction on life satisfaction was lower than the influence of non-work satisfaction, of non-work hassles and of neuroticism. Leung et al. (2011)

considered a possible moderating role of spiritual well-being (defined as sense and meaning in one's life; sample item, reverse coded: "I have a lack of purpose in my life") regarding the influence of career satisfaction on psychological well-being. They found that the correlation of career satisfaction and psychological well-being was stronger for those low in spiritual well-being than those high in spiritual well-being.

A meta-analysis by Bowling and colleagues (2010) summarized studies on the relationship between global job satisfaction, facets of job satisfaction (such as satisfaction with work, with supervisor, with pay) and different indicators of SWB (life satisfaction, happiness, positive and negative affect). It revealed a positive relationship of global job satisfaction with life satisfaction ($\rho = .48$), with happiness ($\rho = .43$), with positive affect ($\rho = .38$) and with the absence of negative affect ($\rho = .28$). Facets of job satisfaction were also correlated with these SWB measures, the effect sizes were, however, smaller (as an example, satisfaction with pay and: life satisfaction $\rho = .17$; happiness $\rho = -.02$; positive affect $\rho = .10$; absence of negative affect $\rho = .20$).

We found no research that was concerned with other-referent subjective career success and its influence on SWB.

2.3 Reciprocal Influences of Subjective Well-Being and Career Success

A further line of reasoning and of initial research endeavours has to be mentioned. Career success may not only influence SWB, but SWB might influence career success, too. There may be reciprocal influences in both directions and it is an open questions which of the directions of influence, from career success to SWB or from SWB to career success, is the stronger one.

Boehm and Lyubomirsky (2008) found that happiness had a longitudinal influence on a person's later income. The above cited meta-analysis by Bowling et al. (2010) is also relevant for the question of reciprocity. These authors found that SWB increases job satisfaction, supporting the reciprocal relationship assumption. Moreover, the influence of SWB on job satisfaction ($\beta = .15$, $p < .01$) was even stronger than the influence of job satisfaction on SWB ($\beta = .06$, $p < .01$).

A study by Abele and Spurk (2009b) was not directly concerned with career success and subjective well-being. It is nevertheless of interest here because it revealed a reciprocal relationship of subjective and objective career success. We based our reasoning on the *psychological success* model advanced by Hall and colleagues (Arthur et al. 2005; Hall 2002; Hall and Chandler 2005). According to this model people experience objective reality, create understandings and evaluations about what constitutes career success, and then individually act on these understandings and evaluations. Based on their actions they attain certain outcomes, which lead to modified understandings and evaluations, respective behaviours follow, and so forth. Such a feedback loop should result in a reciprocal

influence of "objective reality" – here objective career success – and the "creation of understanding and evaluations" – here subjective career success. Objective career success should lead to subjective career success, but subjective career success should also enhance objective success over time. We tested these assumptions in a longitudinal design. Objective career success was measured by income and responsibility span, subjective career success was measured as other-referent success, i.e., success as compared to relevant others, and as self-referent success, i.e. job satisfaction. We found that subjective success was not just a by-product of objective success. It rather had a direct influence on objective attainments over a long time span. It is interesting to note that this reciprocal influence was evident with respect to other-referent subjective success (comparison with a reference group) but not with respect to job satisfaction (self-referent subjective success).

2.4 Discussion

Compared to the richness of conceptualizations of both SWB and career success and also compared to the rich theoretical prospects conceivable for the SWB – career success relationship the empirical research on career success and SWB is still at the beginning.

- We know that there is a small, but significant positive influence of money on SWB, which becomes somewhat larger in low income groups. This influence is once due to the fact that money allows need fulfilment (absolute position; see Diener et al. 1993), moreover it is due to the income rank an individual has in his/her reference group (Boyce et al. 2010).
- We know that there are moderators and mediators of the income – SWB relationship. It has been found that work values (Malka and Chatman 2003) and personality (Luhmann et al. 2011) influence the relationship of objective career success in terms of income and change in income on SWB; and we know that the objective career success – SWB relationship is mediated via satisfaction with income (Johnson and Krueger 2006; Schyns 2001) and via comparison processes (Boyce et al. 2010).
- We know that job satisfaction and career satisfaction are positively related to life satisfaction and other measures of SWB (Bowling et al. 2010). Spiritual well-being was revealed as a moderator (Leung et al. 2011); and research has also shown that job satisfaction is less related to global life satisfaction than non-work satisfaction or neuroticism as an important personality factor (Hart 1999).
- We also know that there are clear reciprocal relationships between career success and SWB and preliminary data suggest that the direction of influence direction of SWB to career success might even be stronger than the other way round (Abele and Spurk 2009b; Bowling et al. 2010).

However, there are still many open questions.

- We found no research concerned with possible negative consequences of career success on SWB. Above we mentioned several prospects for negative consequences, but these have not been studied yet.
- We also think that there are more moderators and mediators of the career success – SWB relationship than the ones studied until now. Besides work values (Malka and Chatman 2003) different orientations to happiness (Park et al. 2004) or different life goals (Abele and Spurk 2009a) might also be moderators. Besides personality (Luhmann et al. 2011) different kinds of comparison processes and subjective evaluations might be mediators.

The operationalizations of career success chosen in the presented studies are limited such that objective career success was mainly measured via income, and subjective career success was mainly measured via job satisfaction or career satisfaction, i.e., self-referent career success. Studies on the relationship of other-referent career success with life satisfaction are still missing albeit other-referent subjective success is especially important in everyday career evaluations.

We still know little about the reciprocal relationship between career success and SWB.

Moreover, we know little about the relative impact career success has on SWB. Some research suggests that career success has a smaller impact than non-work experiences (Hart 1999). More research into these issues is needed.

Finally, the relationships between the more fine-grained distinctions of both SWB (life satisfaction, positive and negative affect) and career success (objective versus subjective; subjective self-referent versus subjective other-referent) are not fully understood yet. Research until now suggests that the relationship is stronger for the cognitive components than the affective components of SWB. It also suggests that objective success has to be "translated" into subjective success in order to have an influence on SWB.

2.5 Concluding Remarks

It is well known that work is for many reasons central in our lives. Research has clearly shown that being unemployed has massive negative consequences on a person's well-being (Lucas et al. 2004). Research has also shown that many psychosomatic disorders may be traced back to negative work experiences (cf. Schaufeli et al. 2009). In the light of these findings it is astonishing that we still know relatively little about the consequences of positive work outcomes, i.e. career success. The present review gave some answers and especially raised further questions that wait to be studied.

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Chapter 3
Upper-Secondary Educational Trajectories and Young Men's and Women's Self-Esteem Development in Switzerland

Sybille Bayard, Monika Staffelbach, Philipp Fischer, and Marlis Buchmann

3.1 Introduction

Adolescents' self-esteem is an important indicator of their successful development (Baumeister et al. 2003; Kernis 2003) and their well-being (Paradise and Kernis 2002). Global self-esteem, which is defined as a positive or negative attitude towards oneself (Rosenberg 1965), is especially fragile during the teen years as these years represent a dramatic developmental period (Harter 2006b). An important step in adolescents' life course is the transition from compulsory to post-compulsory education. Completing post-compulsory education is strongly expected in Switzerland because it is an important prerequisite for future life chances. Post-compulsory certificates are also strong selection criteria for human resources managers. As the level of self-esteem is affected by fulfilled or non-fulfilled expectations (James 1983), we posit that changes in self-esteem are dependent on the educational trajectory experienced. Previous research has also shown that gender differences in self-esteem increase from childhood to adolescence and are highest in middle adolescence (Baldwin and Hoffmann 2002; Kling et al. 1999). However, little is known about the interplay between educational trajectories, gender, and the development of adolescents' self-esteem.

This paper attempts to partially fill this gap by examining the development of self-esteem of Swiss adolescent women and men between the ages of 15 and 18 who follow different educational tracks in upper-secondary education. We address three main questions. Do adolescents who fail entering post-compulsory education differ in the development of self-esteem from those with a successful transition? May the

S. Bayard • M. Staffelbach (✉) • P. Fischer • M. Buchmann
Jacobs Center for Productive Youth Development, University of Zürich,
Andreasstrasse 15, Zürich 8050, Switzerland
e-mail: staffelbach@jacobscenter.uzh.ch

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negative effect of missed entry in post-compulsory education on the development of self-esteem be compensated by subsequent successful experiences? Are there gender differences in the development of self-esteem that are related to different educational trajectories? As mean-level change may mask true development in self-esteem, we analyze intra-individual trajectories of self-esteem with the aid of growth curve models.

Beginning with a literature review of the impact of age, gender and educational trajectories on self-esteem development, we then present our theoretical considerations based on the institutional features of the Swiss educational system, socialization and allocation theories (Pallas 2010) as well as Solga's (2008) theory of institutional identity damage. After describing the research methodology, we will present the findings and finally draw some conclusions.

3.2 Current State of Research

Up to the 1980s, findings on development patterns of adolescents' self-esteem were inconsistent. Some studies reported declining, others increasing or stable development patterns (Eccles et al. 1989; Sandmeier 2005). With the emergence of more complex methods, particularly growth curve models, the study of self-esteem development has received renewed attention. These models allow grasping individual variation in self-esteem development and offer opportunities to include contextual factors. Research employing growth curve models demonstrates that self-esteem development is dynamic, decreasing from childhood to mid adolescence (Baldwin and Hoffmann 2002). Differing by studies, the bottom point varies between 13 and 17 years of age (Falci 2011; Greene and Way 2005; Kort-Butler and Hagewen 2011). After middle adolescence, several studies have revealed that self-esteem increases up to young adulthood (Falci 2011; Greene and Way 2005; Huang 2010).

Little is known how trajectories to post-compulsory education affect self-esteem development from mid to late adolescence. For Switzerland, Häfeli et al. (1988) documented the development of self-esteem between the ages of 15 and 19 broken down by three types of post-compulsory educational trajectories. Apprentices showed stability over time, whereas adolescents in school-based educational trajectories experienced a small and employees a significant decline in self-esteem. Twenty years later, based on a sample of Swiss gymnasium students, Maag Merki and Leutwyler (2006) provided evidence that self-esteem increased between the 10th and the 12th school years. As these two studies consider mean-level change of self-esteem only, little is known about intra-individual differences in self-esteem development of adolescents educated in different tracks of the highly stratified Swiss post-compulsory training system.

More evidence is available for educational trajectories and self-esteem development in early adolescence and early adulthood. Some studies demonstrated the importance

of ability tracking in lower-secondary education with pupils selected into academically less demanding tracks having more negative attitudes toward themselves compared to students in more demanding tracks (Ireson et al. 2001; van Houtte 2005). Other studies have analyzed the causal connection between self-esteem and indicators of occupational success in (early) adulthood. Some authors support the *selection hypothesis*, postulating that the level of self-esteem influences occupational success (e.g., employment status) (Prause and Dooley 1997; Waddell 2006). Young people with high self-esteem may be more confident and stress their strengths in job interviews whereas those with low self-esteem are more doubtful and hesitant to mention their potential. Empirical evidence, however, speaks more in favour of the *socialization hypothesis* (Baumeister et al. 2003), where contextual characteristics are conceptualized as key factors influencing the development of self-esteem. Factors such as occupational status (Bachman and O'Malley 1977), duration of unemployment (Galambos et al. 2006; Goldsmith et al. 1997), successful intergenerational educational status transfer (Samuel et al. 2011) or underemployment (Prause and Dooley 1997) seem to have an impact on self-esteem.

In all age groups, men's higher self-esteem compared to women's has been widely acknowledged (Harter 1999; Kling et al. 1999; Orth et al. 2010). Baldwin and Hoffmann (2002) show that gender differences are most pronounced in middle adolescence. A potential reason for this divergence is that women often become dissatisfied with their body in adolescence, whereas men's perception of their attractiveness remains positive (Harter 2006a). In addition, women's self-esteem is more dependent on feedback in social contexts, fulfilment of social expectations, and social acceptance (Josephs et al. 1992). Research on gender differences in self-esteem development in adolescence shows mixed results. According to Falci (2011), young women experience significantly steeper gains in self-esteem over time than young men. Maag Merki and Leutwyler (2006), by contrast, report a higher increase in men's than in women's self-esteem. Finally, Greene and Way (2005) and Huang (2010) find no gender-difference.

Mixed results also pertain to how educational or occupational attainment affects gender differences in self-esteem development. Goldsmith et al. (1997) found that young men's self-esteem declined only when the duration of unemployment lengthened, whereas young women responded with a damaged self-esteem after having experienced a short period out of the labour force. Catsambis et al. (1999) revealed that tracking at the lower-secondary level affects women's self-esteem more than men's. By contrast, van Houtte (2005) showed that, for the same school level, men's self-esteem is more affected by tracking than women's. She explained this difference with the gender-segregated labour market in Belgium. These studies are characterized by a variety of research methods, different periods in young people's lives as well as differences in the institutional settings. In particular, scarce evidence exists on whether success or failure at the transition to post-compulsory education may affect women's and men's self-esteem development differently.

3.3 Theoretical Considerations

3.3.1 Self-Esteem Development from Mid to Late Adolescence

From a developmental perspective, adolescence represents a dramatic developmental period. The unreflective self-acceptance of earlier periods vanishes (Harter 2006b). Searching the self in adolescence involves a concern with what or who the person is, a task made more difficult by the proliferation of selves that vary as a function of social contexts. Young adolescents' self-esteem is also strongly dependent on how they believe they are viewed by others (Thomaes et al. 2011). Studies show indeed that self-esteem is subject to fluctuation and instability in early and middle adolescence, when adolescents have to set course for their future (Fend 1994; Schrader and Helmke 2009). The subsequent period between mid and late adolescence can be characterized by the cognitive development of higher-order abstractions, providing self-labels that bring meaning to what formerly appeared to be troublesome contradictions in the self (Harter 2006b, p. 549). Adolescents gain in personal autonomy and freedom of choice. In addition, contextual factors may become influential, as young people may have more rewarding experiences in the professional world, with peers and in intimate relationships. We therefore expect self-esteem to increase between mid and late adolescence.

3.3.2 Type of Transition Trajectory and Self-Esteem Development

In order to look at the impact of educational trajectories on self-esteem development, characteristics of the Swiss educational system need to be taken into account. We then conceptualize the links between trajectories and self-esteem development and advance our hypotheses.

Two important features of the Swiss educational system are stratification and early selection into vocational and school-based education (Buchmann and Sacchi 1998). After 9 years of compulsory schooling, approximately at the age of 15 or 16, students are sorted into vocational training or school-based education. Apprenticeships last 2–4 years and prepare adolescents for a given occupation. They are based on a dual training system with practical training in a firm and attendance of a vocational school for 1 or 2 days per week. School-based education includes the gymnasium, preparing students for tertiary-level education at the university, and specialised middle schools, providing comprehensive general education and offering vocationally relevant subjects for future career decisions. Full-time vocational schools may be considered as a special type of school-based education when emphasizing to a greater extent the social structural aspects of learning in a classroom setting and to a lesser extent the content of knowledge transfer.

When adolescents experience difficulties in the transition to post-compulsory education, they end up in an intermediate solution.[1] Today, a vast variety of different intermediate solutions are available, ranging from full-time schooling (e.g., 10th school year), practical work in companies combined with general education to practically oriented solutions (e.g., au-pair). After completion of the intermediate solution, young people either start a post-compulsory education or switch to another intermediate solution.[2]

Against this background, we distinguish five educational trajectories to post-compulsory education. The first three trajectories involve adolescents with no difficulties in transitioning to post-compulsory education. There is the direct transition to vocational training or to school-based education. The latter trajectory may be subdivided into 'regular' transitions after 9 years of compulsory schooling and early transitions, as some cantons offer Matura schools after 6 years of compulsory schooling (so-called 'Progymnasium' or 'Langzeitgymnasium'), others after 8 years. The fourth trajectory involves a post-compulsory training position after attending an intermediate solution, whereas the fifth one refers to missed entry into post-compulsory education up to the age of 18.

To address the significance of educational trajectories for self-esteem development, we first refer to the *theory of allocation*. This theory posits that educational attainment is an achieved status, granting individuals access to desired social positions that confer material and psychic rewards as well as social and political influence (Pallas 2010, p. 500). Through anticipatory socialization, apprentices and students acquire attitudes and learn behaviours appropriate to their future social status. They adopt new social identities to go along with their future social positions and consistent with their future work lives (Johnson and Elder 2002; Meyer 2007). We expect these new social identities to enhance self-esteem of adolescents with smooth transitions to post-compulsory education. The *theory of socialization* maintains that education also has direct implications for self-esteem development as schooling presents individuals with problem-solving challenges that foster knowledge and cognitive abilities to maximize their sense of self-potency and self-esteem (Pallas 2010; Schieman 2002). Research has confirmed the socialization effects of occupational experiences, showing their strong impact on individuals' attitudes and personality as well as providing salient information about the self (Kohn 1969, 1989; Kohn et al. 1990). More specifically, features of work, such as autonomy and complexity of work tasks, promote self-directed thought (Kohn and Schooler 1982; Schieman 2002; Schooler and Oates 2001). Hence, successful transition to

[1] As most adolescents aspire for a post-compulsory training position, a direct transition from compulsory school to the labour market is nowadays rather uncommon (Böni 2003).

[2] Three quarters of those adolescents who have been channelled into an intermediate solution subsequently find a training position in the certifying post-compulsory educational system, whereby the majority is in vocational training and the minority attends schools with a general educational program (Hupka 2003). According to Hupka-Brunner et al. (2010), the chances for entry into post-compulsory education fall swiftly 2 years after having finished the lower-secondary level.

vocational or school-based post-compulsory education should go along with the enhancement of self-esteem from mid to late adolescence.

Differences in self-esteem development between adolescents transitioning to vocational training and those transitioning to school-based education may be expected. School-based education requires higher academic records than the average apprenticeship and generally offers better career prospects (Hupka-Brunner et al. 2010).[3] Hence, both from the perspective of allocation and socialization theory, adolescents in school-based education should show a larger increase in self-esteem compared to adolescents in vocational training. This assumption may be questioned, however. As team members in firms, apprentices have to comply with rules and standards of the firm and their performance is supervised. In exchange, they get immediate feedback from their co-workers and acquire an occupational identity providing orientation and motivation (Lamamra and Masdonati 2009). This may increase their self-esteem. Referring to the frame-of-reference effect (Jerusalem and Schwarzer 1991), we postulate furthermore that the type of upper-secondary education is relevant for the development of the self-concept. In particular, self-assessments are based on social processes of comparison with the relevant reference group. Adolescents evaluate their own abilities in comparison with perceived abilities of their new classmates in upper-secondary schools. As school-based education is a highly competitive setting and students spend most of the school week with the same reference group facilitating comparison, we assume self-esteem development of adolescents in school-based settings to be negatively affected over time. According to these arguments, adolescents who mastered entry into vocational training should have a higher increase in self-esteem compared to adolescents who remain in a school-based education.

The strong norm of achievement prevalent in our society implies that adolescents without post-compulsory education rapidly experience feelings of inefficacy, affecting their social identity. Solga (2008) argues that educational settings assess adolescents by their academic achievement. Knowledge about the self emerges as adolescents compare themselves to self-referent others. In comparison with their peers, failed or successful transition to post-compulsory education becomes evident. One possible reaction of unsuccessful adolescents is what Solga calls 'institutional identity damage' (Solga 2008). Adolescents identify themselves as belonging to the group of poor performers, leading to labelling processes and resulting in diminished aspirations. Outcomes may be alienation, disengagement, and dissociation from learning processes. Cooling-out processes should be all the more aggravated the longer the period of failed access to post-compulsory education lasts. Adolescents are aware that the chances to find vocational or school-based training diminish severely the older they get. A converse argumentation is based on the self-serving bias (Miller and Ross 1975). Individuals generally strive to protect their self-integrity and self-esteem, for example, by taking credit for success, but

[3] Compared to other European countries, there are also substantially fewer full-time vocational schools for academically low-achieving students in Switzerland (Hupka-Brunner et al. 2010, p. 13).

denying responsibility for failure. Crocker et al. (1998, pp. 530 f.) show that prejudices against members of stigmatized and oppressed groups generally do not result in lowered self-esteem for members of those groups. Solga (2008) also mentions the possible positive effect of disengagement and dissociation on self-esteem as low identification with educational performance can protect self-esteem. Cooling-out processes should therefore lead to lowered self-efficacy, but not necessarily to lowered self-esteem (Solga 2008, p. 166). Based on the notions of cooling-out processes and the self-serving bias, we may assume that adolescents who do not find a post-secondary training position until the age of 18 show a constant development of their self-esteem. Along the same line, we advance the hypothesis that adolescents who find access to an apprenticeship or a school-based education after attending an intermediate solution should first show a constant development followed by a boost of self-esteem.

3.3.3 Gender, Type of Transition Trajectory, and Self-Esteem Development

Gender role ideology stresses the importance of status attainment for male identities. Educational achievement has thus been more normative for men (Schieman 2002). This has dramatically changed over the last decades, however. Today, young women constitute the majority in the academically more demanding tracks in lower-secondary education and are overrepresented both in Matura schools and at universities in Switzerland (FSO 2011). Personal commitment to high grades is seen as a female behavioural pattern (Bundesjugendkuratorium 2009). Educational achievement has thus become more expected of young women. Nevertheless, women still encounter more problems in accessing post-compulsory vocational training positions than men. Compared to young men, they choose apprenticeships from a smaller range of occupations, which makes a good fit between job requirements and adolescent's competence level more difficult (Schafroth 2004). In addition, the superior number of male-dominated occupations within apprenticeships and gender stereotyping in the selection of the workforce (Imdorf 2011) hamper women's successful search for an apprenticeship. As a result, women are over-represented in intermediate solutions and have a lower probability of finding access to post-secondary education after leaving an intermediate solution (Bayard Walpen 2013; Meyer 2003). Because of the highly gender-segregated secondary educational system in Switzerland, women's fate is therefore contradictory. On the one hand, they are more successful in accessing academically demanding school-based educational tracks. They are more often confronted with failure at the transition to post-compulsory education, on the other hand.

Because of women's higher risk of failure at the transition to post-compulsory education, social background may be more important for women's than for men's educational success. A long research tradition has shown that the family's

socio-economic background and especially parental educational attainment affect the offspring's educational trajectory (Baumert et al. 2006; Becker 2000; Bourdieu and Passeron 1990). A possible explanation is better access or use of social resources (i.e., networks of relationships) by parents of higher socio-economic background (Coleman 1988). Empirical evidence strongly supports the impact of social capital on action outcomes such as job search, promotions or earnings (Lin 2000). As the selection of apprentices is comparable to the selection of regular job applicants, broader networks should facilitate adolescents' apprenticeship-seeking. But not only parents' social capital, but also their cultural capital (Bourdieu 1983) can contribute to a successful transition to post-compulsory education. The process of choosing an occupation occurs at an early life stage in Switzerland. Higher educated parents have easier access to relevant information regarding training programs or can help preparing application documents which facilitate the search for training positions.

Gender disparities in self-perception also result from different patterns of social interaction and interpersonal experiences (Josephs et al. 1992, p. 391). Men are characterized as being more individualistic and independent as well as having an autonomous schema for the self. Women, by contrast, seem to be more collectivistic and show a relational schema for the self. Their self-esteem is linked to social relationships and attachment to significant others (Horstkemper 1987). They are thus likely to be more aware of society's expectations for educational attainment and want to comply with social norms (Hunt 2010). The comparison between adolescents and self-referent others, a basic element of Solga's theory of institutional identity damage, may therefore be more relevant for women than for men. Women experiencing difficulties in the transition to post-compulsory education are likely to perceive social exclusion more intensively than young men, which may lower their self-esteem. Vice versa, educational success should also be more reflected in women's than in men's self-esteem development. In sum, the interplay of gender-specific educational trajectories and gender differences in the salience of social comparison might result in the greater impact of educational outcomes on women's development of self-esteem compared to men's.

In sum, we expect self-esteem to rise from mid to late adolescence. The nature of this increase, however, is dependent on the type of trajectory to post-compulsory education and the adolescent's gender. Adolescents who immediately find a post-compulsory training position and in particular those with a smooth transition to vocational training are supposed to show a steep increase in self-esteem, whereas adolescents who do not find a post-compulsory training position may exhibit a constant development. Consequently, the attendance of an intermediate solution before switching to post-compulsory education should lead to a constant development followed by a boost. Finally, educational success is assumed to affect women's self-esteem development to a greater extent than men's self-esteem development.

3.4 Methods

Our analyses are based on data of the three waves of the middle cohort of the Swiss Survey of Children and Youth (COCON), born between September 1, 1990 and April 30, 1991 (Buchmann and Fend 2004).[4] The representative master sample in the German and French-speaking part was drawn by a two-stage method in which 131 communities (broken down by community type and community size Schuler and Joye n.d.) were selected. Adolescents residing in the selected communities were then randomly sampled on the basis of information provided by the official register of residents. The initial response rate was 63 %. For statistical analysis, the sample was weighted to correct for an over-sampling of particular community types and non-response. In addition, a moderate under-representation of lower educational strata and some nationalities was corrected using the Federal Population Census 2000 (Sacchi 2008).[5]

3.4.1 Participants

1258 adolescents participated at time point 1 in 2006, 1162 at time point 2 in 2007 and 952 (75.7 %) completed the survey at time point 3 in 2009. Analyses are based on those adolescents having information on their self-esteem at all three measurement points ($N = 934$; 74.2 % of the master sample). At the first and third measurement points (at the age of 15 and 18), participants were surveyed with the help of a computer-assisted personal interview (CAPI). Information was collected on respondents' social development, their educational or occupational biography, and their socialization contexts. At the second measurement point (at the age of 16) a computer-assisted telephone interview (CATI) was conducted.

The average age of the respondents at time point 1 was 15.29 years ($SD = 0.20$) and 53.4 % were women. 78.2 % had German or French as mother tongue, whereas 21.8 % had a non-local tongue. 80.6 % were Swiss, 6.8 % from Southern Europe, 8.0 % from Southeast Europe (e.g., Albania, Serbia), and 4.6 % originated from other countries. 21.5 % had completed a lower-level, 39.5 % a medium-level, and 39.0 % a higher-level lower-secondary schooling. 16.7 % of respondents' fathers and 24.0 % of the respondents' mothers had no post compulsory educational credentials.

[4] This research is conducted at the Jacobs Center for Productive Youth Development at the University of Zürich (Director, Marlis Buchmann) and is generously supported by the Swiss National Science Foundation.

[5] Drop-out analysis, run with a logistic regression model including the master sample at time point one and the sample at time point three, indicate an underrepresentation of adolescents with lower- and middle-level of lower secondary education. In addition, parents without post-compulsory education are underrepresented. For this reason, the sample weights are applied.

3.4.2 Measurements

Global self-esteem was assessed at the ages of 15, 16, and 18, using a reduced Rosenberg Self-Esteem Scale (RSE) (Rosenberg 1965). The validity of the RSE has been assessed for many different samples (Galambos et al. 2006; Greene and Way 2005; Huang 2010; Josephs et al. 1992; Prause and Dooley 1997; Schieman 2002). The scale contains three items,[6] each of which is based on a six-point Likert scale, ranging from 'strongly disagree' to 'strongly agree'. Negative items were reverse coded. All items were averaged to create a mean measurement of global self-esteem. Factor and reliability analysis indicated a one-dimensional index with a satisfactory internal consistency (α for time point 1: 0.73, time point 2: 0.67 and time point 3: 0.75).

For the *educational transition trajectory to post-compulsory education,* we distinguish five types: (1) apprenticeship; (2) school-based education after compulsory schooling (label: regular transition); (3) school-based education – early transition; (4) intermediate solution followed by a certifying training position; and (5) no certifying educational position at age 18. The first three types are successful transitions to post-compulsory education. Distinguishing the second from the third type is necessary because of different transition time points. The second trajectory includes transitions into school-based education after nine compulsory school years, where early transitions (e.g., after 6 or 8 years) are subsumed under the third type. Adolescents in the fourth type attended one or several intermediate solutions followed by the transition to a post-compulsory educational position. Members of type five show heterogeneous trajectories (e.g., several intermediate solutions, dropping-out) without gaining access to a certifying upper-secondary educational position by age 18.[7] *Education in lower-secondary education* is captured by the academic level of the completed lower-secondary school track. We distinguish between low (e.g., type C, special education classes), medium (e.g., types B, G, integrative) and high (types A, E, Langzeitgymnasium). *Mother tongue* is coded 1 when it is the native language of the region where the adolescent resides (i.e., French or German); otherwise it is coded 0. *Father's and mother's educational attainment* is coded 1 for parents without completed post-compulsory schooling and 0 for others. *Gender* is coded 0 for women and 1 for men.

[6] 'I certainly feel useless at times.' 'On the whole, I'm satisfied with myself.' 'All in all, I'm inclined to feel that I'm a failure.' COCON assesses self-esteem at the age of 15 with five items, at the age of 16 with seven items and at the age of 18 with five items. Therefrom, three items showed to have acceptable reliabilities over the three measurement points.

[7] Not all adolescents with 'regular' transitions completed compulsory schooling at the age of 15. 53.8 % made the transition at the age of 15, 28.9 % at the age of 16, and 5.1 % at the age of 17. These different transition time points are due to late school enrollment or grade retentions.

3.4.3 Analytical Procedure

We first conducted multivariate repeated measurements analysis of variance (MANOVA) to examine mean-level change of self-esteem over time and to identify differences in self-esteem development between and within gender groups and the five educational trajectory groups. We then applied latent growth curve modeling (LGM) (Duncan et al. 2006) with the software AMOS (Version 20.0.0) to examine the intra-individual development of self-esteem at the ages of 15, 16, and 18. LGM provides the advantage of including information on inter-individual differences and intra-individual change over time. In addition, we can estimate the effects of covariates such as educational trajectories or parental educational background on the development of self-esteem over time. Finally, a multiple-group model allows conclusions whether the self-esteem development over time and the impact of these covariates on the development of self-esteem differ significantly between women and men. A LGM estimates two latent growth factors, the intercept and the slope, characterized as latent (unobserved) variables with their own mean and variance. In the applied model, the intercept is the part of self-esteem which represents the baseline of time series, that is, it corresponds to the average self-esteem of all respondents included at the first measurement point (Biesanz et al. 2004, p. 33). In contrast, the slope shows change over the repeated measurements (Urban 2000, p. 21). In other words, the slope represents the average amount of change in self-esteem that occurs when shifting from one time point to the other. A positive slope factor indicates an average increase in self-esteem over time, a value lower than zero is interpreted as negative growth. Finally, the estimated variances of growth factors represent inter-individual differences by showing the amount of variation in the initial value and slope. Generally, large-scale variances indicate substantial differences among individuals.

To test the model fit, we used the following measures (Byrne 2001, pp. 73 ff.): The CFI (Comparative-Fit-Index) compares the fit of a target model to the fit of an independent model. Values that approach 1 indicate acceptable fit. The RMSEA (Root-Mean-Square-Error of Approximation) expresses the fit per degree of freedom. Perfect models have a value close to 0, values between <0.06 and <0.08 are acceptable. The SRMR (Root-Mean-Square-Residual) is the square root of the difference between the residuals of the sample covariance matrix and the hypothesised covariance model. Values <0.05 signify a well-fitting model. The CMIN (Chi Square-Based Measures of Discrepancy) represents the discrepancy between the unrestricted sample covariance matrix and the restricted covariance matrix. CMIN/DF is an attempt to adjust for model complexity. A value between 2 and 3 represents an adequate fit. To account for missing values, we applied multiple imputation using NORM 2.03 (Schafer).[8]

[8] The percentage of missing values reaches a maximum of 4.3 % (Father's educational attainment).

3.5 Results

3.5.1 Descriptive Statistics

With a mean between 4.56 and 4.92 on a six-point Likert scale, the self-esteem level was quite high for all participants at all time points and increases steadily over the 3 year period (see Table 3.1). Men's mean scores were significantly higher than women's at all measurement points. Self-esteem level was highest in the male group at the third measurement point ($m = 5.16$, $SD = 0.72$). The standard deviations showed a diminishing trend over the three time points, but women revealed a broader scope than men. The correlation of self-esteem between the first and the second measurement point was 0.58, between the first and the third measurement point 0.48 and between the second and the third measurement point 0.45. These correlation coefficients suggest a good construct stability over time.

The five types of transition trajectories are distributed as follows: 39.5 % of the adolescents gained access to an apprenticeship right after leaving lower-secondary schooling,[9] while 22.8 % made a smooth transition to school-based education after 9 years of compulsory schooling. 12.2 % made an early transition to school-based education. Together, direct transitions to school-based education account for 34.7 %. Almost every fifth adolescent (17.2 %) was allocated to the fourth type, entering post-compulsory education after attending an intermediate solution. Nearly every tenth adolescent in Switzerland (8.3 %) has not entered post-obligatory education at the age of 18. Table 3.2 presents the five types of transition trajectories by gender, mother tongue, lower-secondary educational level, and parents' educational level.

Men serve apprenticeships more frequently, whereas women are particularly overrepresented in school-based education and in intermediate solutions followed by a certifying training position. The contradictory situation of women at the transition to upper-secondary education is thus confirmed. Although women are overrepresented in demanding school-based educational trajectories, they encounter more problems than men in accomplishing a direct transition to post-compulsory education. Adolescents with German or French mother tongues are more likely to access a certifying educational track immediately after compulsory schooling. Those with a non-local tongue encounter higher risks to either make a detour via an intermediate solution or to be without an upper-secondary educational position at the age of 18. Adolescents from less demanding school tracks in lower-secondary education have a lower probability to directly access a certifying educational track after compulsory schooling. Moreover, there is a strong relationship between parental educational achievement and adolescents' allocation to one of the five types of educational trajectories. Adolescents whose parents do not have a post-compulsory educational credential are slightly more likely to make the transition to post-compulsory education via an intermediate solution, whereas their risk of being without a certifying training position at the age of 18 increases considerably.

[9] Of all adolescents serving apprenticeships, six completed a 2-year basic vocational training. At the age of 18, two of them already had entered the labour force.

Table 3.1 Mean scores and standard deviations of self-esteem for the three measurement points, the entire sample and by gender (N = 934)

	Entire sample		Male		Female	
Variable	m	SD	m	SD	m	SD
Self-esteem 1st measurement point	4.56	1.05	4.87***	0.91	4.29	1.08
Self-esteem 2nd measurement point	4.80	0.94	5.09***	0.83	4.54	0.95
Self-esteem 3rd measurement point	4.92	0.89	5.16***	0.72	4.72	0.97

The significance notations refer to t-tests comparing females' and males' self-esteem; *m* mean; *SD* standard deviation; ***$p < 0.001$

Table 3.2 Types of transition trajectories by gender, mother tongue, educational level, and parent's education (N = 934)

	Apprenticeship	School-based education – regular transition	School-based education – early transition	Inter-mediate solution followed by certifying training position	No certifying educational position at age 18
Women	44.6	60.2	51.0	68.2	54.5
Mother tongue = environmental language	82.6	81.0	95.0	64.7	55.5
Educational level in lower-secondary school					
Low	22.9	3.6	0.4	44.0	44.2
Medium	43.7	50.6	2.4	40.8	37.6
High	33.4	45.8	97.2[a]	15.2	18.2
No post-compulsory education father	15.4	11.9	1.4	25.2	40.2
No post-compulsory education mother	21.3	25.7	5.1	35.9	34.7

Values refer to percentages

[a] The vast majority of adolescents making an early transition (after 6 or 8 years of compulsory schooling) attend a gymnasium. They are therefore classified as high-level lower-secondary schooling at the time of completing this educational level

3.5.2 *Men's and Women's Self-Esteem Development in Different Educational Trajectories*

The results of the multivariate repeated measurements analyses of variance (MANOVA) reveal significant effects on self-esteem over time ($F[1.98, 964] = 52.75$, $p < 0.001$).[10] On the mean level, the increase of self-esteem

[10] The Mauchly-test ($p < 0.05$) checking equality of the variances of the differences between the three time points reveals a moderate violation of sphericity. We report the Greenhouse-Geisser corrected values to overcome reservations about sphericity (Rasch et al. 2006).

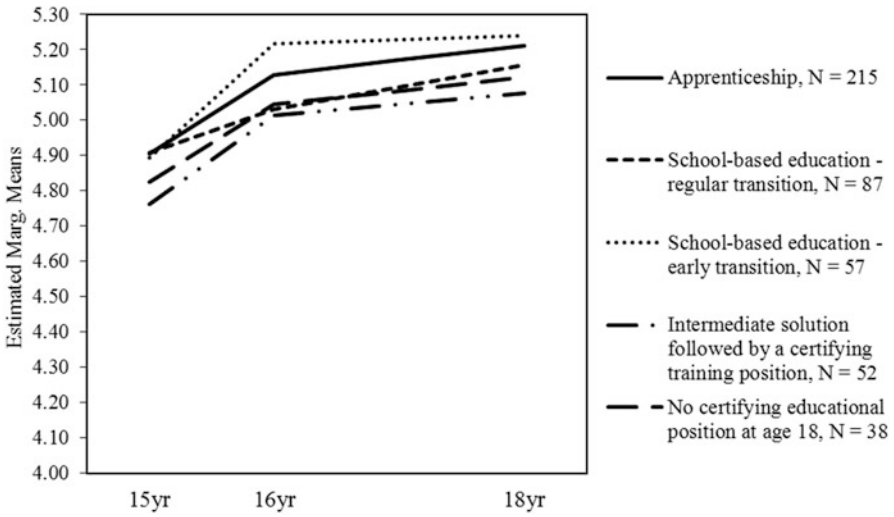

Fig. 3.1 Men's self-esteem development by educational trajectory

between mid and late adolescence can therefore be confirmed. The interaction between self-esteem, gender and type of trajectory is also significant ($F[1.98, 964] = 2.21$, $p < 0.05$). In other words, men and women in these five educational trajectories differ significantly in their self-esteem development. MANOVA also shows significant between-subjects main effects for gender ($F[1, 964] = 81.27$, $p < 0.001$) and type of trajectories ($F[4, 964] = 2.91$, $p < 0.05$). Men and women in different trajectories differ therefore in their self-esteem level.[11] The results are presented for men and women in Figs. 3.1 and 3.2, showing the self-esteem development at the ages of 15, 16 and 18 for the five educational trajectories.

With mean values between 4.76 and 5.24 on a scale from 1 to 6, male adolescents report high self-esteem. They also show a considerable increase by age for all trajectories, especially between the ages of 15 and 16. Differences in men's self-esteem between the five types of educational trajectories are not significant and rather small. They remain more or less stable from mid to late adolescence. Men serving apprenticeships show the highest level at time point 1, but at time points 2 and 3 they are outstripped by men in school-based education with early transitions. By contrast, men going through an intermediate solution before entering a certifying training position report the lowest level for the entire observation period. These findings suggest that educational success or failure after completing compulsory schooling does not seem to be overly relevant for the development of men's self-esteem. Men without a training position over the entire observation period seem to maintain their self-esteem level by self-protection.

[11] Analyses were also conducted without weighting factors. The results showed similar effects.

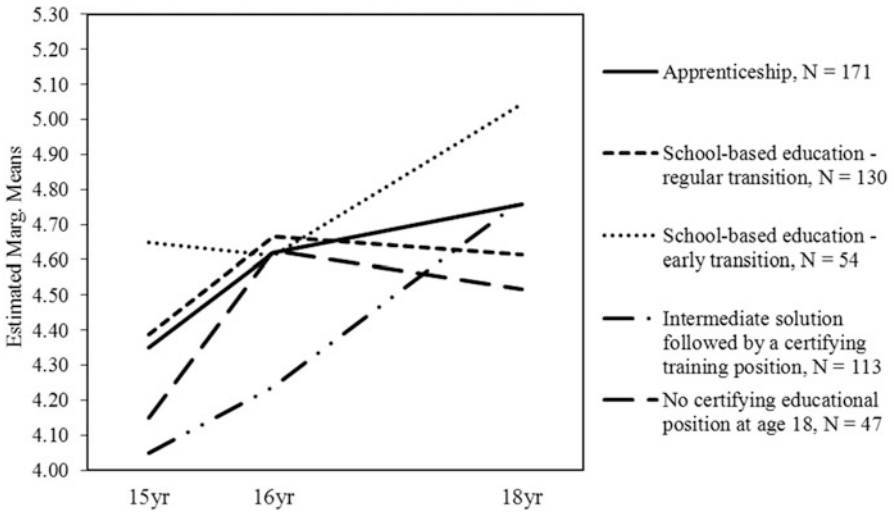

Fig. 3.2 Women's self-esteem development by educational trajectory

For all measurement points, women show a lower self-esteem than men, but, like men, they increase their self-esteem, particularly between the ages of 15 and 16. Unlike men's, women's self-esteem varies by educational trajectories. At time point 1, the largest difference pertains to adolescents in school-based education with early transition and those undergoing an intermediate solution followed by the successful transition to certifying post-compulsory education. Variation in the initial level of self-esteem at the age of 15 might be attributable to differences in early socialization conditions. Referring to Table 3.2, adolescents placed in intermediate solutions followed by certifying training positions differ from those experiencing a smooth transition, especially those transitioning early to school-based education, with regard to mother tongue, lower-secondary educational attainment, and parental educational status. Over time, the self-esteem of adolescents transitioning to intermediate solutions before entering certifying training positions first increases modestly followed by a boost, reaching the same mean-level as women serving apprenticeships by the age of 18. The delayed successful transition to post-compulsory education seems to elevate women's self-esteem considerably. Women in apprenticeships exhibit an almost linear increase in their self-esteem over the three measurement points – a developmental pattern similar to the male counterparts. Women in school-based education with regular transition record an increase between time points 1 and 2, followed by a slight decrease to time point 3. Comparison processes with the relevant reference group in the highly competitive school setting may be responsible for the long-term fading of self-esteem. This process may also account for the slight decrease in self-esteem between the ages of 15 and 16 for adolescents with an early transition to school-based education, as older students, who first completed lower-secondary school (3 years), enter their gymnasium classes, thus changing the reference group.

Women who do not find access to certifying post-compulsory education first show a strong increase in their self-esteem. Immediately after completing compulsory schooling, these women may manage to uphold their self-esteem by self-protection.[12] This boost in self-esteem is followed, however, by a decline between the ages of 16 and 18. They may realize that without a post-compulsory educational credential their labour-market chances drop dramatically.[13]

Overall, the results show an increase in self-esteem for men and women between the ages of 15 and 16. The fact that adolescent women with early transitions to school-based education (and therefore not experiencing a transition in the observation period) are the only ones with decreasing self-esteem development between the ages of 15 and 16 suggests that the completion of compulsory schooling with a subsequent transition has a positive impact on women's self-esteem development. The results further indicate the importance of a successful transition for women's, but not necessarily for men's self-esteem development. Failure at the transition to upper-secondary education has negative effects on women's self-esteem development between the ages of 16 and 18. Women's greater success in attending demanding school tracks may augment the social expectations to succeed. When the internalized norms can only be partly fulfilled, the negative feelings of failure might be reflected in an unfavourable self-esteem development. But not only women experiencing failure, but also successful women in school-based tracks show a decline of self-esteem over time. The frame-of-reference effect, resulting in more negative self-assessments in class settings with a higher achievement level, seems to be more influential for women's than for men's self-esteem.

Using a Latent Growth Curve Model, Figs. 3.3 and 3.4 present men's and women's inter- and intra-individual self-esteem trajectories between the ages of 15 and 18.[14] These models exclude adolescents with transitions to school-based education *before* the age of 15 (school-based education – early transition). This restriction permits to focus on adolescents with educational transitions in the observation period, thus providing the opportunity to isolate the impact of the transition experience on self-esteem development. As MANOVA revealed differing self-esteem development patterns for men and women in varied educational trajectories, we calculated LGM for men and women separately.

[12] The fact that this educational trajectory type also includes young women who dropped out of post-compulsory education after the age of 16 only may as well contribute to the increase in self-esteem between the ages of 15 and 16.

[13] Tukey post-hoc comparisons of the five groups indicated that adolescents in intermediate solutions ($m = 4.35$, 95 % CI[4.22, 4.49]) have significantly lower self-esteem assessments than adolescents in apprenticeships ($m = 4.58$, 95 % CI[4.47, 4.69]) $p = 0.000$, adolescents in school based-education early transition ($m = 4.76$, 95 % CI[4.57, 4.96]) $p = 0.000$ and adolescents in school-based education ($m = 4.56$, 95 % CI[4.43, 4.68]) $p = 0.054$. The difference in self-esteem between adolescents in intermediate solutions and adolescents without certifying educational position was not statistically significant.

[14] Calculations with manifest (observed) scales for self-esteem (presented here) generated better model fit indices than with latent constructs (Curves-of-factor-model; Duncan et al. 2006).

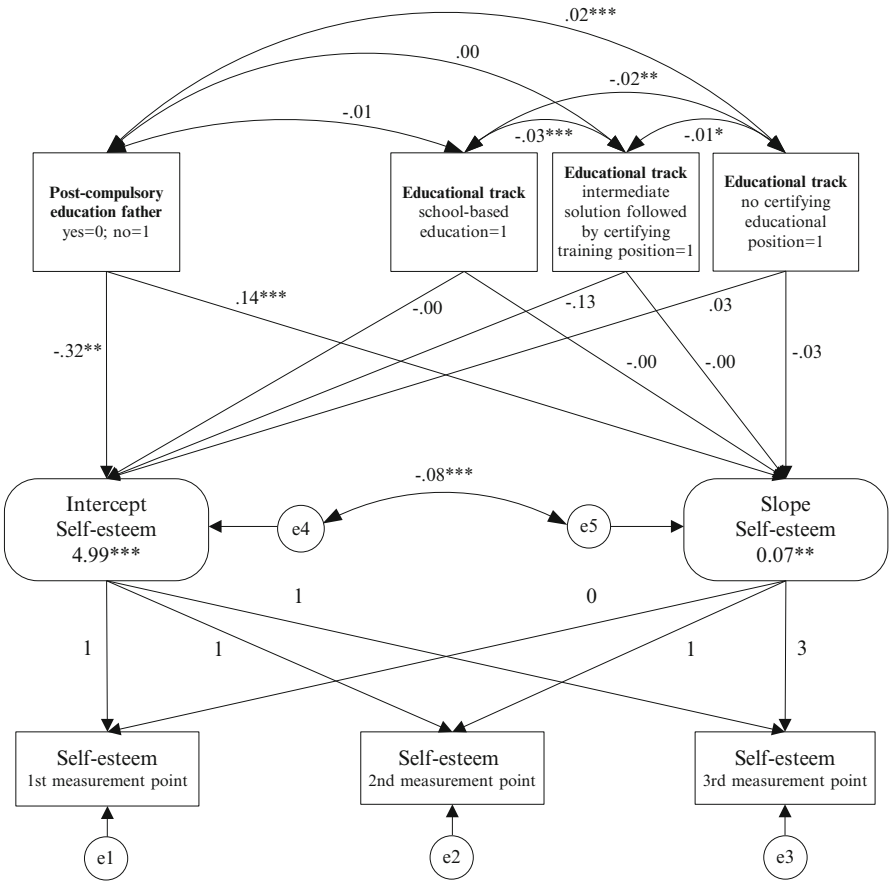

Fig. 3.3 LGM of men's self-esteem development from mid to late adolescence ($N = 350$); $*p < 0.05$, $**p < 0.01$, $***p < 0.001$

Linear growth curve models were estimated because MANOVA indicates a roughly linear trend. In addition, methodological reasons enforced a linear LGM as more than three measurement points are required to analyze non-linear growth curves.[15] Change over time was estimated by fixing the factor loadings for the slope factor according to the hypothesized linear shape of the growth curve at 0, 1 and 3. At each measurement point, the factor loadings for the intercept factor were fixed at 1 to correctly identify the starting point of the growth curve (Urban 2000). To analyze the impact of educational trajectories on the developmental parameters,

[15] A three-factor model with non-linear trajectories (e.g., inclusion of quadratic effects) estimates three variances, three covariances, and three means for the constant, resulting in zero degrees of freedom. Hence, there are not sufficient degrees of freedom available for the evaluation of the model fit (Duncan and Duncan 2004, p. 343).

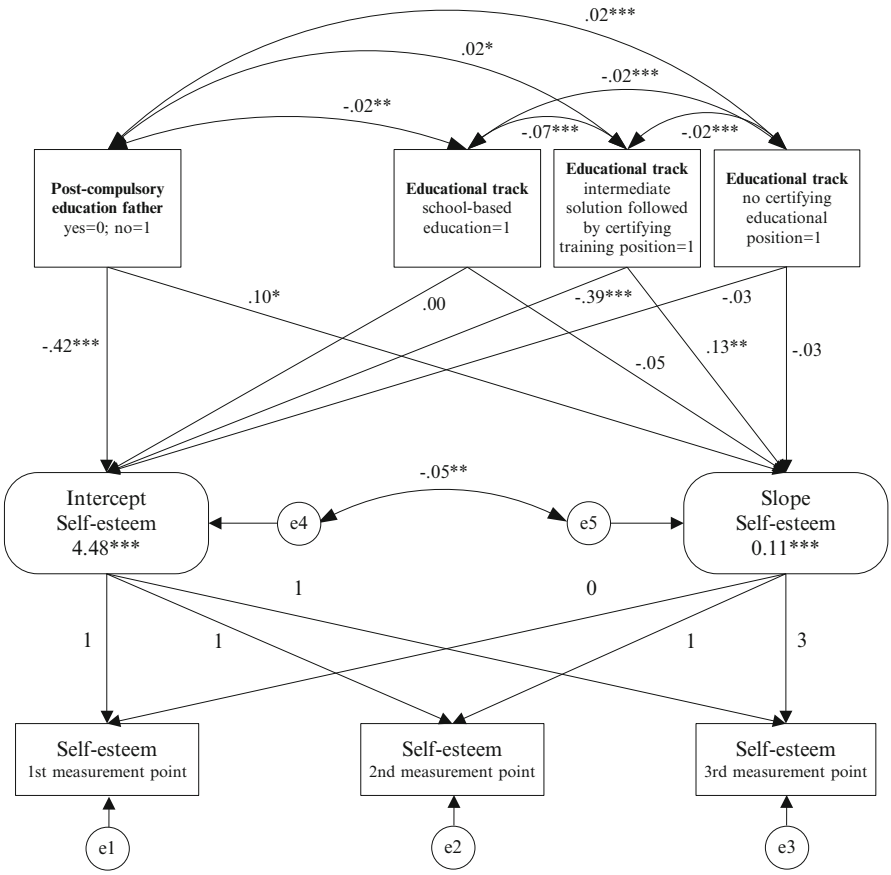

Fig. 3.4 LGM of women's self-esteem development from mid to late adolescence ($N = 443$); $*p < .05$, $**p < .01$, $***p < .001$

adolescents in apprenticeships were chosen as the reference category, then three binary predictor variables were included as time invariant covariates, namely school-based education, intermediate solution followed by a certifying training position and no certifying educational position. In addition, because of the strong relationship between parental educational achievement and adolescents' educational trajectories (see Table 3.2), a binary predictor variable 'post-compulsory education father' was included as time invariant covariate.[16] Because of the subsequent multi-group comparisons on gender differences, unstandardized coefficients are presented.

[16] Compared to mother's, father's educational attainment turned out to be the more significant indicator. A more precise distinction of father's educational attainment did not yield a better model fit, however.

Figure 3.3 shows men's inter- and intra-individual self-esteem trajectories between the ages of 15 and 18. The LGM represents the empirically observed data structure well. The model parameters suggest an adequate fit (X^2 (7, N = 350) = 11.79, $p = 0.108$, $CFI = 0.98$, $RMSEA = 0.04$, $SRMR = 0.02$). The average level of self-esteem at the first measurement point is 4.99 ($SE = 0.06$, $p = 0.000$). Over time, the latent trajectory of self-esteem reveals an averaged linear increase of 0.07 ($SE = 0.02$, $p = 0.002$) when moving from one measurement point to the next. Overall, men exhibit high levels of self-esteem combined with intra-individual growth from mid to late adolescence. The negative covariance between the error terms of the latent intercept and the latent slope factor of −.08 ($SE = 0.02$, $p = 0.000$) indicates that adolescents with a higher level of self-esteem at the age of 15 reveal a smaller increase over time than adolescents with a lower initial level. This result points to a certain ceiling effect in the development of global self-esteem. The findings further stress the importance of father's educational attainment not only for the allocation to an educational trajectory, but also for explaining growth trajectories of self-esteem. Based on the initial status at the age of 15, the intercept for men whose fathers had *no* post-compulsory education is on average 0.32 lower than for men whose fathers have post-compulsory education ($SE = 0.12$, $p = 0.008$). This suggests that disadvantages over the life course such as less favourable socialization conditions in childhood or early disappointments in the school context accumulate and may hurt the self-esteem of adolescents with lower socio-economic background. The significant parameter estimate for father's educational attainment of 0.14 ($SE = 0.04$, $p = 0.001$) on the slope factor indicates that, despite their lower self-esteem at the age of 15, it increased at a faster rate among adolescents whose fathers had *no* post-compulsory education than those whose fathers have post-compulsory education. This faster growth may be explained by more rewarding experiences outside the family with increasing age (e.g., with peers, at school or at work). The positive covariance of 0.02 ($SE = 0.01$, $p = 0.000$) between the father's educational attainment and the educational track with no certifying educational position underlines the intergenerational transmission of educational attainment. Adolescents whose fathers had *no* post-compulsory education have a high risk of being without a certifying educational position at the age of 18.

The LGM-based findings of the impact of educational tracks on growth patterns of self-esteem confirm those based on MANOVA (see Fig. 3.1). None of the trajectories show an impact on the intercept factor or the slope factor. When controlling for father's educational attainment, educational trajectory has no explanatory power for men's self-esteem development from mid to late adolescence. Educational success or failure after completing compulsory schooling is apparently not that relevant for young men.

The model parameters for women's LGM suggest an adequate fit as well (X^2 (7, N = 443) = 31.11, $p = 0.000$, $CFI = 0.95$, $RMSEA = 0.08$, $SRMR = 0.03$). The average level of self-esteem for women at the first measurement point is with 4.48 ($SE = 0.07$, $p = 0.000$) lower than for men. Further analyses with a multi-group model reveal that this difference between men's and women's initial level of self-esteem is significant ($p < 0.001$). Although statistically not significant, women's gain in

self-esteem of 0.11 ($SE = 0.03$, $p = 0.000$) is higher as for men. When looking at the self-esteem patterns of women and men between mid and late adolescence, a converging trend can nevertheless be observed. The impact of socio-economic background on women's self-esteem development can be confirmed. The parameter estimates for the intercept and the slope factor show a lower self-esteem of −0.42 ($SE = 0.11$, $p = 0.000$) and a steeper increase of 0.10 ($SE = 0.04$, $p = 0.020$) for women whose fathers had *no* post-compulsory education. Hence, family's socio-economic background is not only relevant for adolescents' educational career, but also has important effects on their self-esteem development.

In contrast to men, the affiliation to the educational track with intermediate solutions followed by a certifying training position exerts important effects on the rate of women's self-esteem development over time. In the multi-group model, this difference is statistically significant ($p < 0.05$). The parameter estimates for the educational track of −0.39 ($SE = 0.11, p = 0.000$) on the intercept factor confirms that, at the first measurement point, women in intermediate solutions followed by a certifying training position have on average a lower self-esteem compared to women serving apprenticeships . The parameter estimate of 0.13 ($SE = 0.04$, $p = 0.002$) on the slope factor also confirms the higher intra-individual increase of self-esteem for women in intermediate solutions followed by a successful transition to upper-secondary education compared to those in apprenticeships. The delayed success at the transition to post-compulsory education is apparently able to compensate the lower base level of self-esteem at the first measurement point. As women in apprenticeships and those with a delayed successful transition after having attended an intermediate solution do not differ by age or by the age of completing compulsory schooling, a successful transition to post-compulsory education shows indeed implications for women's self-esteem development. As for men, the negative covariance between the error terms of the latent intercept and the latent slope factor of −.05 ($SE = 0.01$, $p = 0.002$) points to a ceiling effect of self-esteem development in adolescence.

3.6 Discussion and Conclusions

This study examined the impact of gender and educational trajectory on self-esteem development from mid to late adolescence. Self-esteem is considered a crucial factor for mental health and psychological well-being (Baumeister et al. 2003; Rosenberg 1965). Particular attention was paid to how various educational trajectories in the highly stratified and segregated Swiss post-compulsory educational system affect women's and men's self-esteem development.

Confirming other studies (Falci 2011; Greene and Way 2005; Huang 2010), our analyses provide evidence that self-esteem increases from mid to late adolescence. As the results of the mean-level change show is this increase, however, not linear. The major boost occurs right after leaving compulsory schooling, followed by a much less pronounced rise. The only exception to this pattern is the group of

women with transitions to school-based education before the observation period, showing a decrease in self-esteem between the ages of 15 and 16. Transition experiences may therefore push women's self-esteem development after the completion of compulsory schooling. The positive effects of experienced transitions on self-esteem development should be corroborated by further research, including latent self-esteem factors adjusting for measurement errors. Particularly interesting would be the extension of the analyses to later transitions in educational and occupational life course such as the transition from school to work and how these transitions are reflected in men's and women's self-esteem trajectories.

For the entire observation period, men's self-esteem level is considerably higher than women's. Research has shown that women in middle adolescence are prone to question themselves regarding their attractiveness and their social relationships, likely to lower their self-perception and self-esteem (Harter 1999). Adolescent women's unstable self-perception is confirmed in our study by larger variances for all three measurement points. Over time, however, the variance diminishes and stability in women's self-esteem increases. This may indicate women's increasing awareness of their capabilities.

Our findings provide strong evidence that educational trajectories affect self-esteem development between mid and late adolescence. The initial value of self-esteem at the age of 15 varies by type of educational trajectory, suggesting that adolescents' level of self-esteem reflects educational experiences in the stratified lower-secondary educational system. The strong influence of father's educational attainment on adolescents' self-esteem at the age of 15 demonstrates the importance of early socialization experiences and the significance of the cultural capital accumulated in the family of origin.

The impact of educational success or failure in the years following the transition to post-compulsory education differs, however, by gender. Men's self-esteem development does not seem to be influenced by their educational trajectory. Between the ages of 15 and 18, their self-esteem raises significantly, independent of the educational success or failure experienced. This suggests that the self-serving bias, which protects individuals' self-esteem after failure, may apply more to men. They may be less dependent on institutional feedback and manage to uphold their own assessment. Women's self-perception, by contrast, depends to a greater extent on educational attainment. Women failing to enter upper-secondary education, for example, show a decline of their self-esteem development between the ages of 16 and 18, potentially indicating the beginning of institutional identity damage due to educational failure (Solga 2008). Educational success is also reflected in women's self-esteem trajectory. A delayed successful transition to post-compulsory education after having attended an intermediate solution increases women's self-esteem considerably. The quite stable increase in self-esteem in women with a direct transition to apprenticeships and the decrease of self-esteem in women with smooth transitions to school-based education suggests that training experiences in employment settings may enhance women's self-perception. Team integration, continuous feedback from supervisors, and the acquisition of an occupational identity may act as strong stimuli for their self-esteem development. All in all,

we conclude that self-esteem is reactive, particularly for women, to social comparison, social evaluation, and to educational experiences (Samuel et al. 2011; Trzesniewski et al. 2003). More insights into women's and men's differing responsiveness to educational success or failure after leaving compulsory schooling, however, are needed. This includes a stronger focus on self-esteem development of adolescents with untypical educational trajectories, as our group of adolescents without post-compulsory education by the age of 18 is very heterogeneous and rather small. Along this line, other sources of men's self-esteem in adolescence, peer-relations for example, should be scrutinized.

The negative effect of unsuccessful educational trajectories on women's but not on men's self-esteem may also be attributed to the differential allocation of men and women to post-compulsory educational tracks. Men are overrepresented in apprenticeships, women in school-based tracks and intermediate solutions. Women's growing proportion in academically demanding school tracks may result in higher expectations to succeed. As they seem to be more aware of social expectations regarding educational attainment and want to comply with social norms (Hunt 2010), failed entry into post-compulsory education shows the potential to considerably lower their self-esteem. The gendered allocation processes in post-compulsory education together with women's greater dependence on social comparison processes and external feedback is thus a plausible explanation for females' higher responsivity to educational outcomes. The interplay between gender, cultural capital, and gender-segregated educational trajectories contributes to different development patterns of women's and men's self-esteem in adolescence. The precise mechanisms by which these effects are produced merit further research, however.

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Chapter 4
Young People's Progress After Dropout from Vocational Education and Training: Transitions and Occupational Integration at Stake. A Longitudinal Qualitative Perspective

Barbara Duc and Nadia Lamamra

4.1 Introduction

To a large extent, the Swiss dual system of vocational education and training is viewed positively when considering how it supports smooth transitions from school to work. Nevertheless, the level of dropout from the system – between 10 and 40 % according to the region and business sector – also highlights some of its limitations. It is this phenomenon of dropout, and more particularly its consequences that our contribution seeks to investigate. As a follow up to a qualitative study focusing on the process leading to a premature interruption of dual-track VET (Lamamra and Masdonati 2009),[1] it aims at analysing young people's situation 4 years after the breach of their apprenticeship contract and the courses they have followed during this period.

Our current analyses have been considerably steered by the findings of the first stage of research in several ways. First of all, transition has been identified as playing a central role. As a major cause of interruption, it has been seen as transversal to all the reasons put forward for dropping out (Masdonati et al. 2010). Secondly, suffering has been identified as a central issue. It leads to the hypothesis that suffering might endure beyond dropout to influence the period after. Finally, the varied significance

[1] The first stage of this research was conducted from 2006 to 2009. A qualitative approach was favoured so as to apprehend not only the reasons for dropout, but also the various elements involved in this initial experience in the professional world. To this end, 46 ex-apprentices reported their experience through semi-structured interviews.

B. Duc (✉) • N. Lamamra
Swiss Federal Institute for Vocational Education and Training, Avenue de Longemalle 1, 1020 Renens, Switzerland
e-mail: Barbara.Duc@iffp-suisse.ch; Nadia.Lamamra@iffp-suisse.ch

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of the dropout – from a true break in the educational or career path to mere incidents without prejudice for the future – suggests the heterogeneous courses following an interruption.

These main findings have led us to follow up our study on the phenomenon of dropout and to focus on the courses following an interruption: what are they made of? How are they experienced by young people? What can we say about their situation 4 years after their premature interruption of VET? We assume that this questioning will allow us to have a better understanding of school-to-work transition. Our contribution offers a double approach of this process. First, it addresses the issue of transition from the angle of the consequences of VET dropout; then it focuses on transition from the angle of occupational integration.

4.2 The Issues of School-to-Work Transition and Occupational Integration Under Study

Transition marks a major turning point in life: the person undergoing transition experiences a breaking point due to a change in activity frameworks and must therefore adjust to new circumstances (Perret-Clermont and Zittoun 2002). In this framework, school-to-work transition refers to the change from school to working life at the end of compulsory school. It represents a key milestone in an individual's progress. On the professional level, it marks a fundamental step in young people's path of entry into working life. On the personal level, school-to-work transition is linked to the passage from adolescence into adulthood and is accompanied by numerous changes in family life, social and cultural identity, economic and legal obligations, etc. (Cohen-Scali 2000). Transition is a process, which starts before entering VET and lasts until sustainable occupational integration. With reference to the distinction often made in the field of school-to-work transition, we distinguish two transition thresholds: the first (Transition 1) refers to the passage from compulsory school to post-compulsory vocational and general education, and the second (Transition 2) from the end of upper secondary level education to employment.

In this context, the dual-track initial VET system is often considered as offering a gradual and smooth transition from compulsory school to working life (OECD 2000). However, it has been highlighted how complex this transition is despite institutional support. We particularly focus on the Swiss context, but this phenomenon has been underlined in numerous countries. Among other things, the phenomenon of the lengthening of this transitional period has been stressed (Amos 2007; Behrens 2007; Meyer and Bertschy 2011; Rastoldo et al. 2007). This is evidenced by the non-linear and heterogeneous transition paths followed by young people, be it when moving from compulsory school to initial VET (problem in finding an apprenticeship position, resorting to transition support structures), during initial VET (apprenticeship interruption, change of curriculum, exam failure), or from the end of training to the first job (problem in finding a job, period of unemployment) (Davaud et al. 2010; Rastoldo et al. 2007). Indeed, concerning the second threshold

for example, whereas apprentices were traditionally offered their first job in the training company (Moreau 2000); this is no longer the case. For most apprentices, obtaining a Federal VET Diploma (CFC) marks the start of a search for their first job, but also of a new transition stage, which may be lengthy. Thus, whereas school-to-work transition may have represented a brief spot in young people's life, it has now become an increasingly difficult, uncertain and painful, lengthy and complex process (Demazière and Dubar 1998; Meyer and Bertschy 2011).

As outlined above concerning the second threshold, the issue of school-to-work transition can be analyzed form the angle of occupational integration. In this perspective, the lengthening and complexification of the transition process leads to question integration mechanisms. Indeed, the issue of integration started being investigated as soon as young people's direct entry into working life became problematic (Demazière and Dubar 1998). In France, the issue was raised by the decline in apprenticeships and the onset of a "strictly school" approach. Indeed, in an economic crisis framework the employers questioned the former qualification mechanisms to favor new recruitment standards based on competence, which entailed a complexification and lengthening of integration. In Switzerland, the phenomenon is also related to recruitment mechanisms. The above-mentioned complexification is particularly evidenced in young people's unemployment rates, which tend to be higher than for the general population (OFS 2011). In addition, unemployment rates are higher for 20–25-year-olds than for 17–20-year-olds, which stresses that it is Transition 2 that has become problematic (Département fédéral de l'économie 2005).

In this context, it is interesting to note the indicators to report occupational integration. Literature generally observes the following objective indicators: permanent employment (open-ended contract, OEC), working in the profession for which one trained, and finally working full-time (Trottier 2000). Added to which are other elements of entry into adulthood, such as leaving one's original family, forming couple relations and creating a new family (Trottier 2000). In an economic crisis context and in relation with the recent transformation of the labor market, the traditional integration indicators no longer necessarily apply. Indeed, employment forms have diversified, and precarious employment mechanisms have spread, in particular for young people (fixed-termed contract (FTC), internships, subsidized employment, etc.) Additionally, traditional forms of employment (OECs) no longer guarantee stability. Finally, the training's adequacy to employment is questioned, as mobility, flexibility and lifelong learning are currently central. New situations emerge, staging young people who successfully have various types of jobs. On the one hand, one sees an alternation of FTCs and brief unemployment periods, which in itself does not necessarily affect the long-term employment path (Nicole-Drancourt and Roulleau-Berger 2002). On the other hand, one sees situations where young people successively have open-ended jobs, which shows the ability of individuals to make themselves employable and avoid unemployment, rather than employment stability (Trottier 2000). These new situations lead one to question the indicators traditionally used to describe integration and the time from which one may consider that someone has completed their integration process. Does this occur when they become stable on the labor market (OECs)? When they

hold a job in line with their training? When they reach sustainable financial independence? Or when they feel that they have achieved social integration?

With these different aspects in mind, we intend to reflect on school-to-work transition from the angle of apprenticeship interruptions, and more specifically of the courses taken further to such an interruption. We view interruptions as an integral part of this process (Lamamra and Masdonati 2009). This off-centered perspective enables us to reflect on the transition allowed by the dual system of VET, which is often considered as a smooth one. Highlighting its complexity invites us to depict what it is made of and how it is experienced by apprentices. Moreover, taking interruption as a starting point also allows us to adopt a particular perspective on occupational integration.

In the following sections, we shall investigate the courses followed by the interviewees further to premature dropout. We shall study both their path as a whole and the periods that we deem to be representative of the transition process. As we shall see later, analysis of the courses further to an interruption led us to distinguish a third transition threshold specific to paths following an interruption, which extends from interruption to resumption of VET (Transition 1 ½). After a brief consideration on methodological aspects, we shall start with an overview of the situation of the young people at the time of the second data collection so as to get a first glimpse of the consequences of an apprenticeship interruption. Then we shall focus on their progress further to dropout and consider the different stages they have gone through. This will contribute to highlight the complexity and heterogeneity of the transition process. Afterwards and thanks to the qualitative approach, we shall concentrate on the way young people experience these periods. Finally, we address the issue of occupational integration through both objective (type of contract, occupation rate, qualification level) and subjective (the elements raised by the interviewees to describe their integration) indicators. This perspective allows us to discuss the usual criteria used to debate about this question.

4.3 A Longitudinal Qualitative Perspective

The issue of premature interruption has rarely been studied through a qualitative approach. This is the first contribution of the analyses we propose. Moreover, the opportunity of adopting a qualitative and longitudinal perspective is not frequent. It is what we propose through the follow-up to the qualitative study mentioned above. On the methodological level, it means that the 46 original respondents were contacted again 4 years later. Semi-structured interviews were first planned to collect data. Regarding the specificity of our population (apprentices having experienced a dropout and then being engaged in various kinds of situations, from training to unemployment), we were afraid of not reaching a sufficiently high rate of participation. However, we actually obtained a 30 % response rate (N = 16), which we considered a good result given the mobility of the population concerned. Nevertheless, because of the refusal of a second interview from some participants

and the impossibility of contacting others, two other methods were used to collect information from most part of the original sample population: questionnaires (N = 6) and files follow-up (N = 20). As a result, information from 42 young people could finally have been gathered.

The semi-structured interviews provide detailed information regarding the current situation of 16 young people and the path they followed from the time of dropout to the second data collection. They also give access to subjective aspects concerning their experience of dropout and its consequences, their path from the time of dropout, their sense of integration (either in a new apprenticeship position or in employment) and their projects. Questionnaires, which were proposed to those who have refused a second interview, enable us to gather factual information regarding the current situation and path of six other young people. They also offer their point of view on their integration and satisfaction in the workplace (either in a new apprenticeship position or in employment), and inform us about their projects, in particular the professional ones. As a result, interviews and questionnaires offer not only an objective perspective on the process of transition (what is the process of transition made of) but also a subjective one (how do apprentices having gone through a dropout experience it). The third method of data collection, the follow-up of individual files,[2] provides information about 20 other young people. It told us whether they had resumed training in the Vaud public system, had dropped out one more time, were still in training or had completed training. However, the post-VET situation is not mentioned in these documents. Therefore the file follow-up does not provide any information about the progress of persons having completed their VET or having dropped out one more time.

Concerning the analysis of the data collected, our main difficulty was to deal with such heterogeneous data. First, we had to work with very different kinds of data (detailed transcripts of interviews, brief answers to the questionnaire, and punctual information from the files). Then we had to face the changing nature of the number of respondents, which represents a challenge in presenting our results. However, this heterogeneity enabled us to conduct different analyses. A first descriptive analysis enables us to portray our entire population's current situation and to reconstruct the courses, from the time of dropout to the second data collection, of the 22 participants surveyed by interview and questionnaire. Then a thematic content analysis (Bardin 1986) of the transcribed semi-structured interviews offers a precise vision of the paths followed by 16 respondents after dropout and of their perception on their transition and occupational integration.[3] These two kinds of analysis enable us to reflect on the consequences of VET dropout. They also allow us to address the issues of transition and occupational integration from

[2] This file follow-up was provided by the TEM – Transition Ecole Métier – association, with whom we have already collaborated for the first stage of research.

[3] Our approach is principally deductive as our analyses have been mainly steered by our previous findings.

this particular angle. Moreover, the analyses of our data shed light on the way young people, who have gone through a dropout, experience school-to-work transition and perceive their occupational integration.

4.4 Results

4.4.1 Young People's Situation Four Years After Dropout

The first stage of our analysis was to describe the young people's situation at the time of the second data collection. This initial analysis covers all the data collected. It should be noted, however, that follow-up of the files of 11 young people did not enable us to find out what they did after having completed their training or having dropped out a second time. However, this initial descriptive analysis serves to provide an overview of the situation of the participants (Table 4.1).

The first noteworthy element is that a majority of the participants are undergoing training (N = 20): most of them resumed training in a similar field (dual-track VET to obtain a Federal VET Diploma). Some opted for full-time VET in school, while others chose to train for a lower qualification (Federal VET Certificate), or even to undergo training not leading to a qualification (pre-apprenticeship[4]). Second comes the number of people whom we know are integrated into working life (N = 9). Eight of these have a diploma and their employment situation reflects the various possibilities in terms of employment contracts (OEC or FTC) and of percentage (full-time or part-time). The ninth person did not complete training and holds an unqualified, full-time position under an OEC. Next are the cases of two young

Table 4.1 Young people's situation 4 years after dropout

Situation	N
In training: leading to a qualification	19
In training: not leading to a qualification	1
In employment: qualified	8
In employment: unqualified	1
Unemployed (with unemployment benefits)	1
Without activity (without benefits)	1
Completion of training[a]	9
Second dropout[b]	2
Total	42

[a] This situation concerns the nine young people of whom we do not know what they did after having completed their training
[b] This situation concerns the two young people of whom we do not know what they did after having dropped out a second time

[4] This kind of training prepares students for entering into VET.

women (one of whom did not complete training), who are neither in training nor in employment at the time of the second data collection. Whereas the girl without a diploma is actively looking for a job, the other has decided, in the medium term, to seek employment in a field other than that in which she trained. As for the 11 persons of whom we do not know what they did after having completed training or having dropped out again, we know that the two who underwent a second dropout have not resumed training, or at least not in the Vaud public system.

From this static description, initial observations may be made about the courses following an apprenticeship interruption. First, regarding resumption of training, it should be noted that a vast majority of young people resumed training further to dropping out of their apprenticeship (N = 40) – mostly in a different field from the previous one (N = 27), but also frequently in a similar occupation (N = 13). A very small number of young people abandon VET, be it after another dropout or not, in order to look for a job. Secondly, this overview highlights the diversity of situations (integration into VET, occupational integration, looking for a job, period without either training or professional activity). These first observations draw a rather positive picture of young people's situation 4 years after dropout. Moreover, the diversity of situation provides a glimpse of the strong heterogeneity characterizing progress from school to work further to an interruption in training (Schmid 2010).

4.4.2 *Young People's Progress Further to Dropout: a Complex and Heterogeneous Process*

The qualitative and longitudinal approach adopted in this research provides not only a spot image of the young people's situation 4 years after dropout, but also a retrospective look at what they experienced from the time of dropout to the second data collection. This encourages us to go beyond the sometimes over-static point of view taken of training interruptions, which may lead to unambiguously interpret the dropout as a final break (*Abbruch*), rather than as a temporary interruption of progress (*Unterbruch*) (Schmid 2010). This dynamic look enables us to recreate the paths followed by the participants, as well as to highlight the various stages making up these paths.

We started this analysis stage by using the data collected to reconstruct the course of each participant surveyed by interview and questionnaire (N = 22). To this end, we noted the various situations[5] they experienced (training, employment, resorting to a transition structure, internship, small job,[6] period without activity, etc.) further to their VET dropout, observing their sequence in time. Despite the restricted nature of our population, the individual paths thus reconstructed proved

[5] We term *situations* the various stages in the path of young people (Doray et al. 2009; Rastoldo et al. 2009).

[6] By *small job*, we mean a contingency job in contrast to employment as a main activity.

extremely diverse and complex. In order to offer a summary of the individual paths of the respondents, we went on to group them within path models.[7] These models thus enable us to better understand the stages making up the paths and how they interlock.

Six situations were retained as the main stages in the paths followed. These are as follows: the VET interruption as the starting point for tracing the path models,[8] resumption of training,[9] completion of training and graduation (CFC),[10] employment, and finally the transition periods from dropout to resumption of training (T 1 ½) as well as from completion of training to employment (T 2). We consider these periods as representative of the transition process: these are intermediary periods between two situations (interruption and resumption of training, or completion of training and employment),[11] which will be detailed later. By reviewing how these six situations intertwine along the individual courses, we were able to trace six post-dropout path models (Fig. 4.1).

Among these, two path models are followed by a majority. The first concerns young people in training and a number of young people in employment (N = 12). This path stands out by a long T 1 ½. The second path concerns young people integrated into working life, and stands out in contrast through its linear character and the lack of transition time (N = 5). To this extent, it is close to a linear transition diagram except for the dropout. The two following path models have further specificities. Path 3 (N = 2) stands out through the major T 2 transition time, which is representative of the current status of the labor market with its high rate of unemployment of young people having completed their education (Département fédéral de l'économie 2005; OFS 2011). Path 4 stands out by giving up all training and a transition time from dropout to integration into unqualified employment (N = 1). The two latter path models show greater complexity, marked among other things by a second dropout. In one case (5a), the second dropout is followed by a resumption of training and CFC graduation, followed by alternating transition periods and short-term jobs (N = 1). In the other case (5b), the situation is similar without, however, any resumption of training (N = 1).

Resorting to these models has not erased the heterogeneity in post-dropout paths, and highlights their diversity. Moreover, three paths cannot be compared to other

[7] Tracing path models does not seek to establish a typology, but offers a simpler representation of individual courses grouped according to similarity.

[8] We do not take into account what occurs before dropout.

[9] We do not take into account the frequent changes in programme or vocation made by young people further to dropout, as they appear of little significance to the path's composition.

[10] All the respondents having completed training obtained a CFC.

[11] We refer to Transition time 1 ½ whenever this period extends beyond 6 months. The 6-month duration most often corresponds with the period from training interruption to the start of the next school year. This is the period for which young people have to wait in order to resume training in case they fail to find a new apprenticeship within 3 months from dropout, during which they may remain registered with the vocational school. We refer to Transition time 2 from completion of training.

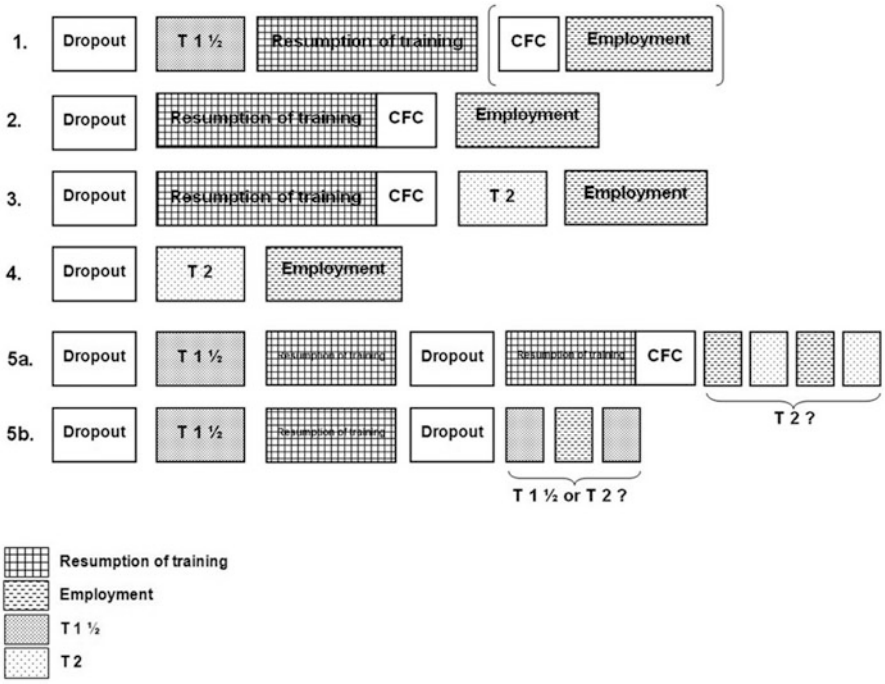

Fig. 4.1 The six post-dropout path models

due to their singularity: giving up training and unqualified employment (4), second VET dropout, sustained alternation of short-term employment and transition periods (5a, 5b). It should be noted, however, that although this only relates to three cases, the elements making up these paths' singularity are frequently observed in quantitative studies on post-dropout paths (Rastoldo et al. 2009). Nor did the use of these models eliminate the complexity of post-dropout paths. In the proposed models, except path 3, this complexity is shown by their non-linear nature as evidenced by the specific transition times (T 1 ½ and T 2). These transition times deserve a few observations.

First, they are omnipresent throughout the path models. Indeed, five of the six models show relatively long T 1 ½ transition times, from 6 months to 3 years, and/or T 2 transition periods. Whereas T 2 appears quite typical of the current context, T 1 ½ appears in an unprecedented way. However, it can be assumed that the nature of this transition time has strong similarities with the transition period from compulsory school to upper-secondary education (T 1): resorting to transition structures, looking for an apprenticeship position. Therefore, whereas the frequent resumption of training stresses that dropout must not be unambiguously interpreted as a final break, the occurrence and the duration of this transition time hint at how difficult it may be to resume training, and more generally at the potentially complex dropout consequences. The duration of this period also explains that the majority of young people are still in training at the time of the second data collection.

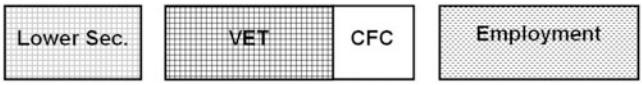

Fig. 4.2 The linear school-to-work transition path model

Moreover, the recurrence of T 1 ½ and the similarities it shows with T 1 confirm that premature interruption of VET is an integral part of the transition process (Lamamra and Masdonati 2009; Masdonati et al. 2010). It stresses that transition is not a one-off moment in time (passage from school to VET), but rather a process which starts earlier (vocational guidance and choice of an occupation), lasts throughout the VET experience (trial and error, change in curriculum, dropout) and ends after graduation (sustainable occupational integration).

The second observation relates to borderline cases in terms of transition time revealed by these path models. Indeed, can one refer to T 1 ½ in the case of alternations between short-term jobs and transition periods further to dropout, or is this already a form of integration into working life (5b)? Similarly, can one refer to T 2 in the case of alternations between short-term jobs and transition periods further to graduation, or is this already a form of integration into working life (5a)? For these ambiguous cases, only information about subsequent progress would enable us to decide. However, they show evidence of more complex paths, which echo the new integration mechanisms (Nicole-Drancourt and Roulleau-Berger 2002). These more insecure integration mechanisms hint at the impact of a dropout on school-to-work transition.

Finally, if we consider post-dropout paths as an integral part of school-to-work transition, we observe the same lengthening and complexification of the transition process as numerous research on the subject. The transition path shown here is remote from the linear path model (Fig. 4.2) often referred to by the stakeholders (young people in transition, parents, professionals) as an ideal, despite the non-linear trend described above.[12]

4.4.3 The Complex Consequences of VET Dropout on School-to-Work Transition

Until now, we have described the complex nature of post-dropout paths in terms of non-linear progress. In the following sections, we shall first investigate the complexity of these paths as shown by the variety and accumulation of situations making up the transition periods, T 1 ½ in particular and T 2. Then, looking at what the participants said in their interview will serve to illustrate the complexity of the various

[12] In this framework, it would be interesting to investigate the impact of this reference to an ideal on young people's representation of their own path in terms of successful or failed transition.

paths followed. These analyses will provide information about school-to-work transition as young people experience it further to an apprenticeship interruption.

4.4.3.1 The Transition Periods: An Accumulation of Various Situations

In order to highlight the complexity of young people's progress further to dropout, we propose to investigate the T 1 ½ transition time and to briefly look at T 2. Our analysis is based on the 16 interviews conducted.[13]

As seen before, the first element emerging from the analysis of the interviews is the variety of situations experienced by young people during T 1 ½: resorting to transition support structures, periods of unemployment and inactivity, internships and small jobs. In this sense, they are quite similar to the situations experienced by young people at the first transition threshold from school to VET. What is more remarkable in the composition of this post-dropout transition time is the number of alternating situations experienced by an individual. Indeed, during this period, the interviewees experience two, three or even four different situations in succession or even intertwined. To illustrate this, we may first take the case of an ex-beautician apprentice currently apprenticed as a healthcare assistant (46[14]), who works in a survey institute while resorting to a transition support structure, then performs various internships in healthcare. Secondly, the way in which an ex-carpenter apprentice currently apprenticed as an operations officer (24) describes his course perfectly illustrates the alternation of various situations from dropout to resumption of training:

> I did a period of unemployment, then I got Mobilet [transition structure] and then I did another unemployment period, which was a bit longer. OK here I'm jumping from one subject to another because what happened was, there was this thing with other apprentices stopping their apprenticeship! And then I got this thing with Mobilet, and after that I had another period of hard times because I, shall we say, lost my self-confidence. I have to admit it because I called several companies, and it was a bit like, everyone would find themselves in the same spot, in any case I have lots of friends who had exactly the same problem I had. Like, we're too old, they'd rather take people straight out of school! [...] I did, well, internships as a house painter, [...] then at the end of unemployment they placed me in Atelier 36 [occupational reintegration measure by the unemployment office].[15]

The succession described by this apprentice, found in many post-dropout paths, shows how complex this transition time can be. As stressed by the apprentice, this complex alternation of situations is largely explained by the problems in resuming

[13] Concerning T 1 ½, the excerpts are also taken from interviews with young people who have only undergone a brief transition time (less than 6 months).

[14] We refer to the interviewees by using their situation at the time of interview (ongoing apprenticeship or position held). If a change in occupation has taken place, we mention the interrupted apprenticeship. The numbers in brackets indicate how the respondents were referred to in the first stage of research.

[15] The excerpts are translations in English of the original French data.

training, i.e. in finding another apprenticeship position and choosing a new VET course. Regarding the search for a new apprenticeship, the testimonies identify the problem as related less to the status of the apprenticeship market than to the stigma which dropout may represent for prospective employers – preference given to younger compulsory school-leavers, negative representation of the dropout, considered as a disrupting situation or as evidence of lack of motivation, and consequently viewing the person who dropped out as fragile or not eager to train. The words of an animal caretaker (5) and of a management assistant commercial employee (9) illustrate to what extent such representations may constitute a major barrier:

> And then they [the employers] didn't want someone who came out of a rather perturbing situation, well, they really didn't want that. (5)

> And then it's always the same prejudice, like yeah she doesn't' want to work.. . . Or like, yeah, "[she's] not motivated". (9)

The problems involved in choosing a new training course affect a large part of those who change career paths after dropout. They are reminiscent of the first transition threshold during which students are faced with the choice of a VET course after compulsory school, and most often result in resorting to one or more transition support structures and/or internships. Further to a training interruption, this choice may prove delicate inasmuch as young people went through a difficult experience (Lamamra and Masdonati 2009) and consequently lost self-confidence or are disappointed, or even disillusioned with the world of VET. We shall come back to this point when reviewing the dropout's possible repercussions on young people's progress and physical and psychological health.

We may note that part of the interviewees also experienced inactivity. Here we rely on the testimonies of participants who associate periods without a vocational or occupational activity (or of searching for an apprenticeship or employment) with inactivity. This is another situation that frequently enters into the composition of the transition time, in stark contrast with other situations and periods characterized by an accumulation of activities. Inactivity periods may be brief (1 month) or extend to a considerable duration (1½ years). The account given by an ex-commercial employee apprentice now apprenticed as a retail assistant (29) strikingly reflects this contrast:

> . . . during that period, it's true that I spent my days at home sleeping, watching TV or on the computer, and went out at night. And after that, for a year and a half I waltzed between two sports shops A. then S. And then I did lots and lots of internships and all, and I found it, finally.. . . So in fact for a year and a half I worked. And for a year and a half I did nothing. But I must say that a year and a half doing nothing is pretty long.

The second transition period (T 2) is characterized by job searches and is also marked by the succession (or intertwining) of the same diverse situations: periods of unemployment, small jobs, internships, continuing education and inactivity. The major difference we can note, however, is that the transition support structures no longer exist, as they were primarily set up to facilitate the first transition threshold.

Moreover, as we will see in the following section, inactivity is differently perceived by young people who experience it during T 2 from the way it is experienced during T 1 ½.

4.4.3.2 Young People's Experience of Transition Periods

The complexity of the courses further to dropout can not only be highlighted by the composition of the transition periods, but can also be displayed by young people's experience of these periods. Considering these aspects enables us to look more in depth at the complexity, which resuming training and finding a first job may entail, and more generally at the consequences of VET dropout on school-to-work transition.

If we come back to the various situations young people know during the transition periods, the first striking element is the way inactivity is experienced. As outlined in the excerpt of the ex-commercial employee (29), this situation is negatively perceived whether it is experienced during T 1 ½ or T 2, which highlights the centrality of training and work activities in individuals' lives. Moreover, it is mostly described as a painful time, as it is perfectly expressed by the ex-beautician apprentice currently apprenticed as a healthcare assistant (46):

> It was total carelessness, um, I was really, um, I really didn't feel like doing anything. I would stay at home and let things lapse, like I had piles of letters to send but, um, I didn't send them. And at the same time I wanted to get through this, but I didn't feel like doing anything to sort myself out.

This situation is therefore not only marked by inactivity in terms of training or work, but also by a physical and psychological state whose characteristics are close to the symptoms commonly associated with a state of depression: weariness, discouragement, sense of helplessness, lack of motivation. These symptoms are often considered by the respondents as a backlash from the dropout and/or the conditions prior to dropout and related suffering (Lamamra and Masdonati 2009).

As for the young people who experience inactivity during T 2, aside from the fear of being inactive, they face the fear of being unemployed and particularly of deskilling. Indeed, they have just obtained their CFC and wish to work and moreover in their area of expertise. This leads the young animal caretaker (5) to accept a small job, as an attendant in a vivarium, which affords her neither long-term employment, nor sufficient wages, but keeps her in her field of activity. This may also leads other persons to retrain, as did this commercial employee (9):

> I was on the dole and said to my counsellor: "Place me somewhere or forget about me!"... I arrived at [company name] placed by the employment office, for a 50 % computer course, which meant I could look for a job in the morning. After a week, the teacher said: "OK, master's course, anyone interested?" I said yes, so out of 15 pupils, two of us followed the master's course.... After that, i.e. on March 1 2009, I was selected for an internship. And from May 1, I started courses at the private school... so as to master everything relating to correspondence.

Here again, the fear of remaining without activity is foremost, but the wish to qualify to make oneself employable is a major one. In the background is the fear not to find employment (all the more so if, like the persons in models 5a and 5b, a first rather lengthy transition threshold has marked their path) and the pressure to be employable. This lengthy transition cumulating various activities and situations may therefore generate anxiety and weakening.

Whereas we insisted above on inactivity, other situations turn out to be painful. Indeed, we observe that symptoms of depression also appear at other times in the post-dropout path – when alternating or cumulating activities, after finding an apprenticeship or having completed training. To illustrate this, we shall relay the terms of the management assistant commercial employee (9) describing what she went through although she rapidly found another apprenticeship position:

> After finding this position in October of, um, the year, um, of my, um, my second year of apprenticeship, I completely blew up mentally, physically I really broke down. So I did six months' apprenticeship at 50 %.

This period of depression (she mentions lethargy, a negative perception of the future, a suicide attempt) starts at the time when she has effectively found a new apprenticeship position, and seems to be the backlash, together with family problems, of her dropout and of the mobbing she suffered in her first position. In this sense, what emerges from the interviewees' reports is consistent with the findings of other research into the consequences of a dropout on physical and psychological health (Ferron et al. 1997; Stalder and Schmid 2006; Schmid and Stalder 2007): loss of self-confidence and self-esteem, feeling depressed or actual depression, risk behaviours such as consumption of alcohol or drugs, aggressive behaviour towards self or others.

The young people's reports therefore give a rather bleak account of the transition periods, particularly from interruption to resumption of training (including the time prior to dropout), as evidenced by the various terms used repeatedly to refer to this period: "bad experience", "hard times" (*galère*), "the hardest period". However, the young people's accounts also highlight its positive side. In those cases, the period is considered as a meaningful time in their progress, which enabled them to think about their chosen profession, to become more mature and to gain self-esteem and self-assurance. Many excerpts mention this aspect, and we selected the account of the ex-carpenter apprentice currently apprenticed as an operations officer (24) following over 2 years of "hard times" (*galère*):

> I'm part of those who got it together, because at the same time these two years, I mean, it made me think! It made me think, made me know who I am. Know where I wanted to go.. . . I said to myself, now some people make it, others don't! And I'm probably part of those who need to do an apprenticeship, and then fail it, and then who need some time to find themselves, because sometimes when you come out of school, you don't really know yourself. You know yourself only in relation to school, to what teachers tell you and all that. But in relation to working life, or to life in general, you really don't know who you are.

What is striking here is the meaning that the youngster attaches to the painful experience of dropout and the subsequent transition period. He considers this period

not only as a time for reflection and self-awareness, but also as a true transition period which enables him to know himself outside the school world and prepare for working life. Thus, although some research highlighted the influence of inactivity or of the post-dropout transition time on the motivation to find a new apprenticeship position or to embark on further training (Schmid 2010), the interviewees highlight how they used this period, and the meaning which they managed to attach to it. In this perspective, the value frequently attributed to this experience is that of a test which, when passed, makes way for a feeling of relief and pride at having won, or even at having gained something useful. To express how she overcame this trial, the management assistant commercial employee (9) says she "has become a fighter", after experiencing "the worst period". The operations officer apprentice (24) says he "came back up again", after having "fallen and crawled", and a dental assistant (30) says she came out of a "warpath" to finally be "at peace".

Whereas we insisted, when presenting the path models followed by the respondents, on the possible interpretation of dropout as a mere interruption rather than a final break, reviewing the young people's actual accounts highlights how painful the experience was for them and its consequences on their progress and state of health. The post-dropout path and how young people describe it highlight the complexity of this transition and the pain it may cause, and mitigate the perception of dual-track VET as offering a smooth school-to-work transition (Cohen-Scali 2001). Additionally, the paths of two young people – the ex-commercial employee apprentice unemployed at the time of interview (18) and the ex-retail assistant apprentice with an unqualified salesperson contract (6) stress that dropout may also entail a break with the world of VET. Indeed, both decided not to resume training and to integrate into working life without qualifications, as clearly expressed by the ex-commercial employee apprentice (18):

> I won't start training again, I'm fed up with it, it's over![16]

This excerpt highlights that dropout and the conditions prior to that may have a major impact on the representation of VET or work, which plays an important part in the integration process beginning from the entry into VET. In the case of the two above-mentioned interviewees, it is largely a negative representation of VET induced by their previous experience, which leads them to break with the world of VET and pushes them towards more precarious forms of integration. In contrast, many young people manage to overcome this negative representation of VET or work, like the animal caretaker (5) who kept the same career path, rapidly found an apprenticeship and finally a job that she likes, despite the negative representation of work induced by her experience:

> ... where I started [1st apprenticeship] they did manage to turn me right off work... When you enter a vocational field as you leave school, and it's your first professional experience, and it's such a bad one... You think, "wow, is it like this everywhere?... It can't be! Is this what work is really about?"

[16] Note that she makes this decision further to another dropout.

If in conclusion, we review the various cases mentioned in this section, we may note the diversity in post-dropout paths both regarding the various elements making these up and regarding how this period is perceived. Indeed, we insisted on young people who reported their problems and suffering, but we can also note the case of two respondents who say they did not experience specific difficulties during this period. However, the findings presented in this article do not allow us to make an in-depth analysis of the parameters, which may explain these different paths and perceptions (Stalder and Schmid 2006).[17] Nevertheless, our data highlight two major parameters: the reasons for dropout, whereby the latter's consequences are more acute in case of relational difficulties; and the support (family, friends, colleagues, school friends, institutional structures, etc.) given, as expressed by the operations officer apprentice (24):

> I fell down, I crawled, and little by little I came back up again. OK not alone, that's clear! Because this is almost one of the hardest parts of life! I mean the apprenticeship, so you do need, um, support. So it's true that some people do not have support from their parents. So you have to find support somewhere, be it family, friends or even for example Mobilet as well!

4.4.4 The Issue of Occupational Integration in the Context of VET Dropout

As identified above, dropout and the conditions prior to that may have a major impact on the representation of VET or work, and therefore play an important part in the integration process. In this perspective, we address the consequences of VET dropout on school-to-work transition in terms of occupational integration. Given the objective situation of our population (a majority of whom are still in training), we obtained a very wide definition of integration, which therefore relates to integration (or the feeling of integration) both into a first job and into a new apprenticeship position. In line with the limitations presented above and with other recent research (Gauthier et al. 2004; Rastoldo et al. 2009), we review the issue of integration through both objective (type of contract, occupation rate, qualification level, independent finances, housing, projects, etc.) and subjective (the elements raised by the respondents themselves to describe their integration) indicators. Sometimes both types of indicators correspond, and sometimes they clash, which provides an opportunity to discuss the relevance of the selected indicators.

[17] Stalder and Schmid (2006) highlighted various parameters such as reasons for dropout and the duration of the transition time from interruption to resumption of training, but also the nationality, socioeconomic origin and prior level of schooling.

4.4.4.1 Occupational Integration: Objective Elements

To report the objective indicators of occupational integration through our population, we focused on the information collected by interview and questionnaire (N = 22). Therefore, 4 years after VET dropout, the respondents find themselves in extremely varied situations between training and employment (Table 4.1).

The majority of our population is still in training 4 years after a premature interruption. This, as we saw earlier, illustrates the problematic nature of the post-dropout path and the major transition phase (T 1 ½). However, these paths tend to aim at training for a qualification that will, in the long term, ensure occupational integration.

The issue of qualification emerges in these apprentices, who indeed frequently stress this as an incentive to complete their VET, overcome problems and try to keep training (Lamamra and Masdonati 2009). Thus, at this stage, obtaining a diploma serves to have the minimum prerequisite to possibly secure a first job. Short of this goal, some people hope to obtain a diploma in order to be "at peace". This is how the ex-carpenter apprentice currently apprenticed as an operations officer (24) describes it:

> You have to tell yourself that you need a qualification, in fact any qualification at all and then you'll be at peace! That's what I told myself, at least I'd get a CFC diploma, and then I'll be nice and quiet.

The nine young people having obtained a CFC are broken down as follows: the majority (N = 5) have an OEC and a full-time position in their field. These people therefore fully meet the usual criteria for occupational integration (OEC, 100 %, job matches training). One person has an OEC but is working part-time (60 %), and two others have a full-time job but fixed-term. The latter three have situations close to the new forms of integration described earlier (Trottier 2000; Nicole-Drancourt and Roulleau-Berger 2002). Finally, one last person is jobless but not registered with the unemployment office.

Despite this latter case, the situations of these nine people stress the major importance of a qualification (CFC) in obtaining a first job matching traditional criteria (OEC, 100 %) or the new employment mechanisms (FTC, internships, alternating situations). Again, obtaining a qualification is a central issue. Indeed, the CFC is perceived as a passport for occupational integration, regardless of the field of activity or subsequent level of education. A cook, currently unemployed (33), stresses the importance of qualification:

> Yes, because whatever you want to do, you need a CFC.... Yes, it [the CFC] will open doors, that's what I tell myself.

A minority of respondents (N = 2) gave up all training and failed to obtain a diploma. In one case, the non-resumption of VET occurs immediately after dropout, whereas in the other case, it occurs after a second dropout. Yet both these young people are in very different employment situations. One ends up without training, unemployed and with no intention to resume any VET, while the other has done

successive internships and now holds a 100 % position with an OEC. This latter case recalls the new employment mechanisms set out above. However, despite having an OEC, this person is clearly more fragile on the labor market, in particular in case of loss of his current position.

For these persons, the qualification issue is put into perspective as they mention other skills needed for occupational integration: resourcefulness, experience, etc. One of the two persons mentioned above – a commercial employee (18) without CFC and unemployed – expresses this as follows:

> I know what I'm worth, I know what I am, I don't need to show them.

What we observe following this descriptive presentation is that the diploma alone is not sufficient to guarantee occupational integration, since at least one person without qualification occupies a 100 % position with an OEC, and at least one person with a CFC is unemployed and obviously outside the employment system (including unemployment benefits). Furthermore, a CFC does not guarantee a traditional integration, since some persons hold part-time positions (imposed)[18] or only have FTCs. Beyond the usual criteria to describe integration, the issue of qualification appears as a transversal element. It appears central for those in training or in employment, and is delegitimised or put into perspective by people without a diploma. In a context of tensions on the labor market and in a society that extols the virtues of diplomas as a basis on which one may build not only a career, but also lifelong learning, it is hardly surprising to find that the qualification issue appears inescapable.

4.4.4.2 Occupational Integration: Subjective Elements

In order to discuss the relevance of the objective indicators mentioned above, we reflect now on our population's integration (or feeling of integration) from the angle of subjective indicators. The elements presented in this section are mainly based on semi-directive interviews (N = 16). As part of the thematic content analysis, we reviewed the elements put forward by the participants to explain how and why they felt integrated. Three main indicators emerge: team integration; taking on responsibility; and recognition, be it by the company management or as an apprentice.

The issue of integration into a work team is recurrent, be it in employment or in VET. This stresses the major importance, repeatedly described for VET, of the working environment, climate or atmosphere (Moreau 2000). This is sometimes rated above the activity's interest and serves to compensate difficult working conditions (Moreau 2000). It is therefore hardly surprising to find this relational

[18] We refer to imposed part-time since, on several occasions, the interviewees pointed out that their occupation rate had not been decided by themselves. When looking for a job after completing VET, they agreed to the terms offered even when these did not quite meet their expectations.

aspect mentioned in the context of integration. The ex-optician apprentice, now optician sales assistant (25), expresses this very clearly:

> My boss immediately created this family-like atmosphere.

Such is also the case of the ex-commercial employee apprentice now apprenticed as a retail assistant (29), who uses virtually the same wording to report on the working atmosphere:

> In the evening we often have drinks, and the boss joins us. My boss, he says: "This company is a big family".

Beyond the issue of the friendly atmosphere, these elements also highlight dimensions relating to professional identity. These are relational dimensions of professional identity as reported by Dubar (1996). It is in the eyes of significant others – in this instance colleagues already acknowledged as professionals – that one acquires a status. Being part of the family is being one of the company's professionals and, for people in training, it means being part of those who will become acknowledged professionals.

The second recurring element mentioned by the respondents in employment is the issue of responsibilities. These may be entrusted to them independently from a specific position, which evidences recognition of their work and skills. Through this, they reach the status of professionals, of people having left behind their apprentice status. Given the ambiguity of this role and associated constraints (Moreau 2000; Lamamra and Masdonati 2009), being set apart from one's former status through such responsibilities is extremely rewarding. In some situations, responsibilities come with a specific position, which entails a distinction from one's former status as well as evidencing upward mobility. This is clearly expressed by this commercial employee (9) working as a management assistant:

> The good times are: having found a job, being what I am today.... And having become a fighter, because in my first year, I couldn't see myself becoming a management assistant at 20.

One also finds this indicator in those who have resumed training. In their case, the issue is integration into a new VET course leading to a qualification. The importance of such responsibilities relate to the fact that the new employer acknowledges the prior course. The apprentices concerned are therefore able to show that they acquired experience during their initial VET, even if this led to a dropout.

Responsibilities are linked to the construction of a professional identity. If, during training, the apprentices had several identities (vocational, professional, as an apprentice), it is particularly rewarding to leave behind the hybrid apprentice identity to embrace a professional identity, or at least to abandon the status of a novice to get closer to that of a quasi professional.

The issue of recognition is closely linked to that of responsibilities. Indeed, the stake is entry into a collective working body and belonging to a community of peers. Both elements are sometimes linked, as for this dental assistant (30) who

obtains recognition first by being put in charge of supervising apprentices, and then through the encouragement and thanks which she gets on a daily basis:

> That he [the boss] should come and tell me that I'm the sunshine of his practice, honestly it may not be much, but for me it's as though he offered me I don't know how much money, by just saying thank you. I'd rather he thanked me with words than by giving me money.

In this excerpt, it should be noted that the relational aspect is paramount. This young woman considers that she enjoyed a good integration as all three indicators are there. Firstly, she has responsibilities as she is in charge of the apprentices. Secondly, she is recognized by her employer and finally, this recognition evidences a very good relationship with the rest of the team. These subjective indicators are particularly interesting in this case since, as for the objective elements, although this young woman has an OEC, she only holds this position part-time (60 %), which she did not choose.

The same applies to integration into a new apprenticeship position. The wish is both to be recognized in one's status as a trainee, and to be in charge of rewarding, stimulating tasks. In this case, the tension between learning and producing, which is specific to apprentice status, is central. As in the previous section, the issue is recognition of prior experience (one is not just an apprentice like any other), as well as recognition as a trainee. The ex-carpenter apprentice currently apprenticed as an operations officer (24) clearly highlights both these aspects:

> My boss told me "I don't take you for an apprentice, I consider you as a worker! Even if you are an apprentice". Because he gives me work which I'm capable of doing, which I do exactly like an employee. But he helps me, he does. . .

This last indicator also highlights the issue of professional identity. The idea is to be recognized as a professional or as a trainee about to become one. The transversal nature of this issue indicates that we are looking at a young population in the midst of identity building. Its recurrence also brings to the fore the central issue work represents for them.

4.4.4.3 Considerations to a Categorization of Occupational Integration

As shown by our analyses, the traditional objective indicators are not sufficient to address the issue of occupational integration. Thus, we propose a way of categorizing young people's occupational integration that would take into account the subjective elements we have mentioned above. Our approach is inspired from Trottier (2000), who suggests combining objective (job stability, occupation rate) and subjective elements to assess occupational integration. Additionally, we sought to derive information from our interviews and responses to the questionnaires about job or VET satisfaction, so as to add this element to the assessment (Rastoldo et al. 2009). Finally, we made up our categories by combining those of

Rastoldo et al. (2009)[19] with those proposed by Gauthier et al. (2004),[20] who also dealt with young people still in training. Four groups emerge: those whose integration we may safely assume as assured, those on the path to integration, those for whom integration is difficult and, finally, the persons on the way to being marginalized.

We refer to assured integration for those persons who have a form of job stability (OEC or succession of FTCs, working 100 % or part-time) and who express themselves satisfied with their situation (sense of integration, integration within the team, recognition of their young worker status, etc.) Finally, the persons whom we placed in this group are able to make stable and feasible projects.

We consider that persons are on their way to integration when they are training for a qualification (regardless of the duration of T 1 ½), are satisfied with their training situation (sense of belonging to the team, recognition of their apprentice status, etc.), and are able to express relatively stable projects, particularly with regard to completion of their VET.

We refer to difficult integration for those persons who underwent a major transition time and whose situation fluctuates from job stability to job uncertainty (e.g. someone with an OEC but without any qualification, whose chances on the labor market will be lower should they lose their current job), but also swings between satisfaction and dissatisfaction with their situation (e.g. someone satisfied with having a job, having had a difficult time until now, but whose satisfaction is limited to having a source of income and who neither feels part of the team, nor has a rewarding professional identity). Moreover, persons in this category find it difficult to express projects or, when they manage to do so, formulate unrealistic, vague or uncertain projects. The last category concerns persons on their way to being marginalized or who have a high risk of being marginalized. These are out of employment, but also out of training. They are relatively dissatisfied with this situation. Furthermore, they express unrealistic projects, or realistic ones that are scary or inhibiting.

[19] The categories used by Rastoldo et al. (2009) are as follows: assured integration (*intégration assurée*) (job stability and job satisfaction); uncertain integration (*intégration incertaine*) (job uncertainty and job satisfaction); difficult integration (*intégration laborieuse*) (job stability and job dissatisfaction) and deskilling integration (*intégration disqualifiante*) (job uncertainty and job dissatisfaction).

[20] The categories used by Gauthier et al. (2004) are as follows: young people stabilized on the labor market (*jeunes stabilisés sur le marché du travail*) (job stability, whether typical or not); young people on their way to stabilizing on the labor market (*jeunes en voie de se stabiliser*) (resumption of training leading to a qualification or first stable job); young people in precarious situations *(jeunes en situation précaire)* (unemployment, survival job, resumption of training) and young people on the fringe of the labor market (*jeunes en marge du marché du travail*) (without activity, small jobs, health problems, etc.). To that may be added the issue of the ability to make feasible projects, which we find in young people stabilized or on their way to stabilization.

4.5 Concluding Remarks

The longitudinal perspective we adopt in our contribution allows us not only to discuss the consequences of VET premature interruption but also to address the issues of transition and occupational integration. On the one hand, it enables us to go beyond the univocal interpretation of dropout as a final break and to underline its possible interpretation as a mere interruption in the educational or career path. On the other hand, however, our analyses highlight the heterogeneity and complexity of young people's courses following a dropout, and show how a dropout contributes to the phenomenon of complexification and lengthening frequently associated to the processes of transition and integration. Moreover, if our analyses highlight that a dropout does not necessarily have serious consequences, they show how a second dropout can contribute to jeopardize the processes of transition and occupational integration (Fig. 4.1, models 5a et 5b). In addition to these elements, the qualitative approach we adopt through the consideration of young people's experiences and perception underlines the uneasiness and suffering often associated with the periods following a dropout.

In conclusion, we can say that the qualitative and longitudinal perspective we adopt offers a nuanced and subtle portray of school-to-work transition. On one side, the longitudinal inputs offer a globally positive view on the issue of transition, in particular on the paths following a dropout. On the other side, the qualitative approach allows us to address the complexity of the phenomenon. It enables us to take into account the subjective elements that highlight the suffering and distress associated with transition, but also the well-being young people experience after having successfully faced the challenge it represents. In this perspective, one of the major contributions of our approach is to give access not only to young people's points of view regarding their experience of transition, but also to the elements they put forward to express their feeling of integration.

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Chapter 5
Success, Well-Being and Social Recognition: An Interactional Perspective on Vocational Training Practices

Stefano A. Losa, Barbara Duc, and Laurent Filliettaz

5.1 Introduction

In Switzerland, vocational education and training programs are the pathways most commonly followed by young people after compulsory education. The majority engages in the dual VET system, which is often considered an efficient way of sustaining the transition from school to work. Nowadays this is a matter of concern in Switzerland and in the canton of Geneva, the context of our study, where high levels of exam failures and dropouts from apprenticeship can be observed (Filliettaz 2010b; Stalder and Nägele 2011). Whereas global theoretical explanations could be used to explain such an issue in terms of the knowledge discrepancy between school and work for instance, a detailed interactional framework is seldom enacted to understand the fine-grained processes of vocational learning. However, as evidenced in recent research conducted by Lamamra and Masdonati (2009), attrition rates rely to a large extent to the quality of workplace interpersonal relations and trainers' support during learning encounters.

From this observation, our aim is to develop a microscopic approach to vocational training participative practices and interactions. By adopting a situated perspective on learning (Brown et al. 1989), we see engagement and participation in activities and social interactions within communities of practice as key contributions to learning, and also to the construction of identities. As shown by Lave and Wenger (1991), learning is deeply connected to becoming a legitimate member of a community of practice. For apprentices, this requires participation in joint activities and being able to "position [themselves] in a complex network of relations

S.A. Losa (✉) • L. Filliettaz
Faculty of Psychology and Educational Sciences, University of Geneva, Uni Pignon, Bd du Pont-d'Arve 40, 1211 Geneva, Switzerland
e-mail: stefano.losa@unige.ch

B. Duc
Swiss Federal Institute for Vocational Education and Training, Avenue de Longemalle 1, 1020 Renens, Switzerland

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involving other apprentices, teachers, trainers and co-workers" (Filliettaz 2010a, p. 30). Other scholars like Billett (2001) have also paid attention to contextual and social conditions that may have an impact on learning opportunities. They have specifically focused on the forms and qualities of guidance processes through which experts orient newcomers to workplace production tasks. In this perspective, it becomes relevant to investigate how participants involved in interaction position themselves and how this positioning contributes to the *expansive* or *restrictive* nature of learning environments (Fuller and Unwin 2003).

Our contribution focuses on the relationship between trainers and apprentices within training centers and aims to highlight how interactional processes can lead to a legitimate, recognized and valued social position within learning communities of practice. We consider this 'successful' dimension an important component of learning processes and construction of learning trajectories. Thus, we sought answers to the questions: How do apprentices negotiate forms of participation to communities of practice? How do they actively contribute to their legitimacy? How do vocational trainers shape specific participation formats to apprentices? How do they contribute to bring recognition and legitimacy to these forms of participation?

Drawing on video-recorded data recently collected in a training center involving first year apprentices in industrial trades, social recognition processes were investigated by adopting an interactional and multimodal perspective analyzing verbal and non-verbal behavior in naturally occurring training practices (Filliettaz 2010c; Filliettaz et al. 2010; Kress et al. 2001). Two contrasting case studies focusing on apprentices experiencing distinct learning trajectories will be examined. The first one leads to valued forms of participation, the other one marginalizes the role of the apprentice within the community of practice.

5.2 An Interactional Framework on Social Recognition

5.2.1 Social Recognition and Contextual Legitimacy

For decades social recognition has been thoroughly investigated as a research domain. In contemporary sociology for example, social recognition has been defined in terms of social and civil rights and associated with other societal phenomena like multiculturalism, ethnicity, democratic participation and sexuality (Taylor 1994; Fraser 1995, 2000; Honneth 1996). Within social psychology, in particular the seminal work of Mead (1967), social recognition has a long research tradition, conceptualized in terms of basic needs and background motivation sources for the development of one's individual self and explaining individual behavior. According to Jacobsen and Kristiansen (2009, pp. 50–51), social recognition has been either approached as an abstract philosophical issue or referred to the "person's subjective perception of being recognized by his/her surroundings". They argue, however, that "the intermediary realm between self and others

constituted by actual people engaging with each other in actual face to face interaction has been neglected" (2009, p. 51).

By focusing on the trainer/trainees relationship within training centers, we intend to explore the "intermediary realm" of face-to-face recognition processes. To understand recognition as driven by "interactional, situational or interpersonal" factors, Jacobsen and Kristiansen (2009, p. 51) adopt a Goffmanian perspective on social recognition (Goffman 1959, 1963). The authors draw on the distinction between "cognitive recognition" and "social recognition". As defined by Goffman, the former refers to "a process by which one individual 'places' or identifies another, linking the sight of him with a framework of information concerning him", the latter is more concerned with "the process of openly welcoming or at least accepting the initiation of an engagement, as when a greeting or a smile is returned" (as cited in Jacobsen and Kristiansen 2009, p. 58). In this way, social recognition is understood as interactional recognition "constituted by social, ceremonial and indeed interactive rules and norms of engagement with others in actual social interaction" (Jacobsen and Kristiansen 2009, p. 59). The Goffmanian framework on recognition is thus strongly based on the symbolic interplay between participants and the management of their *faces*. Following Goffman's perspective, people in social encounters display a certain valuable image of their self and are permanently working to orient the impression they make on other participants. Indeed, people are able to act as a certain type of person or enact specific roles through verbal and body language especially. However, when acting, people also give off expressions that are mostly involuntary or uncontrolled. Conveying and maintaining the self-image they want to display appears as a complex work, particularly because the recognition of one's face largely depends on others' judgment. Highlighting interactional processes of contextual recognition and legitimacy can thus be described and analyzed as impression management. From this standpoint, Goffman's dramaturgical perspective (Goffman 1959, 1963, 1974) provides analytic tools of particular importance for our analysis. First, the notions of *face* and *face work* highlight how individuals in interaction are bound to the symbolic recognition they will afford one another and to the need to consistently work out their self-impression. Second, the concept of *participation framework* captures the interactional involvement of participants and the ways this involvement may be permanently reframed.

5.2.2 *Interactional Participation in Vocational Training*

As Goffman's analysis of the "interaction order" refers to a wide range of everyday social encounters, his theoretical frame can be applicable to specific interaction settings, including vocational training practices. Focusing on vocational training environments, this paper investigates learning-driven interactions between trainers and apprentices by describing interactional strategies and practices of impression management. That is, what does it mean then to participate (or not) in a legitimate or valuable way within vocational training interactions?

Although vocational training relationships have been extensively studied within educational research, understanding them from an interactional perspective is a relatively recent affair. Central to this field is the pivotal work of Lave and Wenger (1991) on communities of practice, which led a number of scholars to approach vocational learning processes as relational practices and joint accomplishments (Billett 2009; Filliettaz et al. 2008; Kunégel 2005; Mayen 2002 *inter alia*). Such collective and community-based perspectives on learning show among other things that groups and communities are not only carrying "a *shared repertoire* of communal resources" for learning, like "language, routines, sensibilities, artifacts, tools, stories, styles" (Wenger 2000, p. 229). Communities of practice also share among their participants a repertoire of moral and behavioral expectations like norms, beliefs, values, attitudes, individual and role-based engagement. Thus, capacities, competencies, attitudes and recognizable behaviors, legitimate and valuable positions, for example, are somehow contextually defined within communities of practice according to this salient repertoire of moral and behavioral expectations. This is particularly visible in the Lave and Wenger (1991) core concept of "legitimate peripheral participation". This concept,

> provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artifacts, and communities of knowledge and practice. It concerns the process by which newcomers become part of a community of practice. (Lave and Wenger 1991, p. 29)

Here, legitimacy is about the recognition and the acceptance of the apprentice's novice identity from an old-timer trainer. In other words, trainers expect apprentices to act in a consistent and relevant way according to their ratified learner position that enables them to become full-participants of the community.

From an interactional perspective, actors who are involved in a learning process need to interactively align each other to what is normatively expected according to the social role they take on. This leads us to consider participatory practices in vocational learning settings as relevant candidates for observing how learning processes may be sustained or hindered in specific interactional settings. As shown by Billett (2004), individual engagement and agency are central components of learning within workplace environments. Consequently, being involved in a valued and recognized way may have strong implications in terms of access to knowledge and membership within learning communities of practice. In this sense, individual engagement stands for "participation" since participation "entails a sense of belonging (or a desire to belong), mutual understanding and a 'progression' along a trajectory towards full participation which – indirectly – defines the community which is the target of 'belonging'" (Handley et al. 2006, p. 649).

Learning through collective practices and interaction is seldom settled linearly. Collective learning configurations rather involve heterogeneous and unequal forms of participation and mutual relationships amongst participants. Heterogeneity and complexity among learning communities of practice emerge across several dimensions such as boundary crossing, actors' non-engagement within theirs roles,

multiactivity, etc. When considering trainer/apprentices relationships within vocational training interactions, two main sources of tensions may be identified: a *moral* tension and an *interactional* tension. Moral tensions involve personal-based forms of conflicts. Apprentices may belong to several communities of practice in which different roles and identities are mobilized. Thus, they have to locally negotiate or navigate between these multiple identities. As Handley et al. (2006, p. 648) write:

> An individual's continual negotiation of 'self' within and across multiple communities of practice may, of course, generate intra-personal tensions as well as instabilities within the community. One example of this in the workplace is the scenario where a newcomer experiences a conflict of identity in relation to a role or practice he or she is expected to adopt (...). [The] newcomer may choose to maintain a marginal (Wenger 1998) form of participation in order to avoid compromising his or her sense of self (...).

The possibility to avoid compromising one's self leads Handley et al. (2006, p. 649) to consider that there are "variations in the degree of participation (as felt by individuals or recognized and labeled by others members)" within "peripheral", "full" or "marginal" forms of participation. Moreover, apprentices may not necessarily wish to belong to the community of trainers, as argued by Mottier Lopez (2008) about school contexts: pupils do not seek to become teachers. Regarding the trainers' side, moral tensions could arise from status negotiation. As noted by Lave and Wenger (1991), trainers can feel their authority threatened by apprentices becoming full participants. This later point is reinforced by Billett (2009, p. 90), who explains that experts may cope with such threats by assigning novices to marginal tasks as well as maintaining them in peripheral or even marginal positions:

> Experts' reluctance to guide and provide close interactions will likely weaken the quality of workplace learning. Such reluctance may arise from fears about loss of status or concerns about being displaced by those whom they have guided and supported.

The second form of tension can be referred to as an *interactional tension*. While addressing an interlocutor, speakers are often simultaneously engaged in a plurality of activity frames. As noted by Filliettaz (2002), the complexity of "real" interactions depends on the multiplicity of interactional foci in which each interlocutor can simultaneously be engaged in. Within vocational training settings, for example, apprentices tend to solicit (or be solicited by) the trainer while being observed by their mates or directly communicating with them. Within such complex interactional configurations, endorsing a legitimate role of an apprentice and doing *facework* may involve rather different forms of talk when addressing the trainer or his mates. In other words, the participants' multi-oriented behaviors in interaction involve a multiplicity of frames (Goffman 1974) that can sometimes be at odds and generate tensions.

Without being exhaustive, these two forms of tensions show that any interaction works as a joint action (Clark 1996; Goffman 1959) in which participants must permanently and mutually negotiate their roles, expressions, *faces* and ultimately their legitimacy and recognition. According to this, *interactional participation* could be defined as "a mutual orientation the interactants manifest to each other

and the reciprocal engagement they display toward a joint activity" (Filliettaz et al. 2009, p. 99).

To understand how apprentices and trainers mutually participate in interaction and set the conditions for gaining or losing social recognition, empirical examples will be considered, referring to a specific methodological perspective.

5.3 Analyzing Vocational Training Interactions: Methodology and Data

To investigate social recognition in vocational training interactions, we adopt a linguistic approach to discourse and interaction. Such a framework combines several disciplines and/or analytic frameworks. In addition to Goffman's dramaturgical and interactional perspective mentioned above (Goffman 1959, 1963, 1974), contributions from the ethnography of speaking and interactional sociolinguistics (Gumperz 1982) are also central to our analysis. This later perspective enables us to account for the complex relations linking contextual information with participants' interactional behavior in general and the production of speech in particular. Gumperz shows for instance how individuals engaging conversation locally interpret contextual meaning and achieve a joint understanding of situational features through *contextualization cues*. Moreover, insights coming from pragmatics and interactional linguistics (Filliettaz et al. 2008; Mondada 2004) are called upon to analyze language and speech as situated and sequentially organized realities. Finally, multimodal discourse analysis (Kress et al. 2001; Norris 2004; de Saint-Georges 2008) is also used to take into consideration the wide range of semiotic resources used by participants and which are external and complementary to verbal communication (gestures, gaze, body positions, interactions with objects and the material environment, etc.).

Empirical material used in this paper is part of a larger research project (Filliettaz and et al. 2008, 2009, 2010; Filliettaz 2010a, b, c) that aimed at tracing contrasting trajectories of participation in order to better understand the processes of learning and identity construction in the context of transition from school to work.[1] Data collection was conducted in the form of ethnographic observations of a cohort of 40 apprentices engaged in three different technical trades: car mechanics, automation and electric assembly. Such an ethnographic perspective allowed us to observe and document situations of vocational training in naturally occurring conditions in the Geneva area and in the various sorts of settings involved in the dual training system: vocational schools, private training centers, workplaces. With

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the consent of participants, ordinary training activities were video-recorded by researchers. The recordings took place after a long period of preliminary observation lasting several weeks, during which a relation of mutual recognition and confidence could be progressively established between researchers, apprentices and trainers. The complete data set comprises approximately 150 h of audio-video recordings collected in one vocational school, two private training centers and nine different workplaces. Special attention was paid to training interactions in which apprentices were involved in vocational learning tasks with a variety of experts, ranging from vocational teachers working in vocational schools, dedicated trainers hired by training centers or experienced employees available on the workplace. Apprentices were mainly male adolescents, aged between 15 and 18 years old. They were observed both during their first year and fourth year apprenticeship, namely at the beginning and at the end of their training program. In addition to audio-video and ethnographic observations, other empirical sources of information were collected, consisting primarily in field notes, research interviews and various written documents.

In the following paragraphs, we turn to two contrasting case studies related to two different apprentices observed during our research program. These two apprentices belong to the same cohort of automation apprentices observed during their first year apprenticeship both in a private training center and in various workplaces. For the aim of this article, we focus exclusively on data collected in the private training center. When looking at the ways these two apprentices engage with their trainer and peers, diverse abilities to hold participatory positions in interaction can be identified. A detailed analysis of different excerpts of data will illustrate how participation in interaction may consist in gaining visibility and centrality for some apprentices, or, conversely, in becoming an undesired focus of attention.

5.4 Examples of Valuable Trainee Participation Practices

5.4.1 Gaining "Visibility"

This section draws on empirical data collected in a private training center (CEP) dedicated to initial vocational training in trades related to the machine industry. Apprentices in the trade of automation spend the six first months of their training in this center in order to become familiar with basic technical knowledge and skills in areas like mechanics, electronics and electric wiring. These skills are seen as a necessary introduction before engaging in the more complex sorts of construction and maintenance tasks apprentices will encounter later on in the workplace.

The selected audio-video sequences transcribed below are mainly situations locally labeled by participants as moments of "theory". They relate to periods of instruction in which the trainer stands in a central position facing the group of

apprentices. The role of the trainer is then to display and explain several skills and techniques related to the use of machines or ways of carrying out specific tasks (i.e. assembling an electrical board). Compared to the apprentices, the trainer endorses a position of expert in line with his social role. Those moments of "virtual classroom" regularly occur during a training day at CEP. Observations show that during collective instruction or "theory", apprentices may be more or less active depending on their position in interaction. Accordingly, the trainer addresses apprentices either as a "class" or individually. In both cases, interaction can be considered as a whole in which participants share the same interactional environment and are mutually ratified as legitimate participants.

In what follows, we focus more specifically on the tutorial relationship between the trainer (MON) and one of the apprentices, named Donald (DON). DON is a 16-years-old French-speaking first-year apprentice who can be considered as high performing. He claimed to have had a long-standing interest for electronics and was able to access the automation apprenticeship program immediately after compulsory school. Observations show that DON regularly takes an active stance (i.e. questions, answers, comments) in reaction to MON's solicitations. The position of "centrality" assumed by DON is used here as a privileged frame for understanding the interactional construction of socially recognized forms of participation. In other terms, the asymmetry between MON's and DON's institutional roles allows to highlight the interdependent relationships linking DON, the trainer and the rest of the group.

The first two sequences focus on DON's interactional practices of gaining centrality compared to other apprentices. A third extract will highlight, in turn, the vulnerability of these roles due to the interactional interdependence binding them to each other.

5.4.2 Negotiating Alignment and Active Participation Practices

This first sequence refers to a situation of collective instruction (theory moment) in which the trainer (MON) explains how to use the milling machine for edging a metal part according to a specific angle. As shown by the data, DON makes use of numerous interactional opportunities to take on a particularly active role.

1. "because otherwise you wouldn't ask us to come over" (Film No 202, 50′30 – 52′00)[2]

[2] The following transcripts are translated from French. Transcription conventions are listed in the Appendix.

50′30	1. MON:	okay come here everybody/ so\ on this workpiece (.) ((shows the workpiece)) we will have to make (1s) an angle (3s) according to the plan/ ((points at the plan))
	2. DON:	yes ((leans over to look more closely at the plan)) [Fig. 5.2]
	3. MON:	an angle of forty-five degrees\do you think that's the right way\ ((approaches a metal workpiece to the milling machine))
	4. DON:	no\
	5. ??:	no\
	6. MON:	why/
	7. DON:	because otherwise you wouldn't ask us to come over\
	8. ??:	hehehe:
	9. MON:	well do::ne this is ((smiles and rises the index finger)) [Fig. 5.1] another reason/ (2s)
51′15		so a tool like this one/ [Fig. 5.3] it only works for little chamfers or things like that whereas here/ we will have an substantial quantity of material to remove\ we need to cut down to ten millimeters\
	10. DON:	we have I think we have to
	11. MON:	deep yeah
	12. DON:	to rotate this ((comes close to the head of the cutter with his hand and mimics a rotation gesture)) <yeah>
	13. MON:	because this milling machine. is settled at forty-five degrees/ and what will happen with removed material\
	14. DON:	well the removed material will get stuck\
51′38	15. MON:	the removed material/ which is up/ ((points at the precise location on the milling machine)) will tend to slip down and get stuck . in the knives of the machine because it's larger and will get stuck down\
	16. DON:	and then the milling machine will be stuffed\
	17. MON:	and then the milling machine will be stuffed/ and then it will not work/ and then you will force/ and then it will not work at all\

The sequence starts with the trainer (MON) convoking the apprentices (1) who are working individually at their machines, to attend a collective instruction he is about to provide. Apprentices are addressed as a whole group ("*everybody*"). The trainer then anticipates (1–3) the next task apprentices will have to accomplish according to their learning program and explicitly asks the group if they know about the correct method to apply ("*do you think that's the right way*\").

This question affords DON the opportunity to start an impression management work through three interactional practices. First, he answers MON's class solicitation in a totally dispreferred or unexpected way ("*no...because otherwise you wouldn't ask us to come over*"). Such a displaced answer sounds like a misalignment to the trainer's question, which addresses DON as well as other apprentices as a whole. By "displacing" the trainer, such an answer highlights DON within a highly visible position *standing him out* as different from *everybody*. Moreover, from this answer, it is also possible to hypothesize that DON already has a particular position within the group and compared to MON: this position allows his joke to be accepted, or at least not to be sanctioned (MON: "*well do::ne this is ((smiles and raises the index finger)) another reason*", see Fig. 5.1) or even brings him recognition from his mates ("*hehehe:*").

Fig. 5.1 MON laughs and rises his left hand

Second, DON manages his image by answering correctly (10–12) to MON's rephrasing of the problem (9). In contrast with the foregoing joke (7), DON's answer provides an impression of *active and thoughtful participation* showing his capacity to be seriously engaged when necessary. Third, the impression of engagement and participation is also pointed out by a frequent *anticipation* of MON's explanations (14 and 16). It is noticeable that MON seems to ratify DON's anticipations by rephrasing his answers (15 and 17). Consequently, he confers legitimacy to DON in front of the group. Several multimodal resources also support such outstanding participation practices. For instance, DON is the first apprentice to self-select himself as an answerer to MON's question (2). He also bodily highlights such a position by leaning over the plan on which the trainer and the other apprentices are focusing their attention (see Fig. 5.2).

This selected sequence of interaction also reveals the strong interdependencies linking the different participants despite their different status. Indeed, MON indirectly contributes to the interactional work of DON. For example, the "displacing" answer given by DON compels MON to sharpen and reformulate his questioning (9) into a more complex and argued issue, and to support it with multimodal resources (see Fig. 5.3) (*"so a tool like this one/ it only works for little chamfers or things like that whereas here/ we will have a substantial quantity of material to remove\ because we need to cut down to ten millimeters"*).

Similarly, MON has to take into consideration DON's correct answers by assessing them positively in front of the class (12). By doing so, the trainer conveys legitimacy and recognition to DON's position amongst his mates. On the other hand, the very act of assessment or validation confirms the central position of expertise endorsed by the trainer.

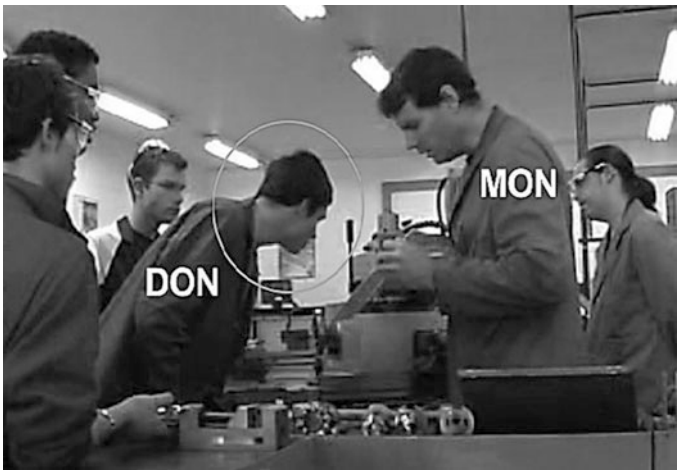

Fig. 5.2 DON leans over the plan

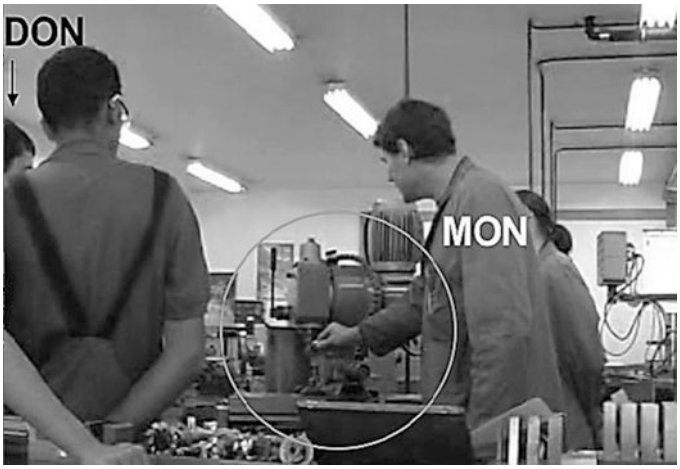

Fig. 5.3 MON points at a tool included in the milling machine

The second sequence refers to a collective classroom-like training dedicated to the use of the punching machine and the correct way to place the work piece on it. In the context in which it was observed, apprentices are manufacturing a sanding block, which contains a thin metallic piece, in which holes have to be pierced on the sides. In order to punch holes in this workpiece, apprentices need to use a press, which they have never used before. The sequence refers to the moment where the trainer (MON) initiates a sequence of so-called "theory" and provides instructions regarding the use of the press. He starts by displaying a rubber part that is needed to eject the piece from the punch. He addresses the whole group, including Donald (DON), Franck (FRA) and Bertrand (BER).

2. "*very clever indeed*" (Film No 208, 4′52 – 5′50)

04′52	1. MON:	so here we have rubber parts/ why do we use these/ it is because once we have punched the piece the punch remains stuck in the hole ((establishes eye contact with DON)) [Fig. 5.5]
	2.	so this part is elastic/
	3. FRA:	this will help XX
	4. MON:	and/
	5. DON:	this eject the piece\
	6. MON:	this will eject the piece/ .
	7.	this fits in here I will show you\ ((MON leans over the press and installs the rubber part under the punch))
	8.	but we will not use it now and I will tell you why in a moment\
	9. FRA:	we won't use this/
05′15	10. MON:	no we won't\
	11. DON:	yeah because because
	12. BER:	it's because we punch a very thin piece\
	13. DON:	no that's not the reason\ it's because we punch on the sides of the piece and not in the middle\ ((points at the metal piece located on the press))
05′24	14. MON:	very clever indeed\.. yes exactly\ [Fig. 5.4]
	15. FRA:	why/
	16. MON:	simply because
	17. DON:	because because we won't make holes in the centre of the piece but only here on the sides you see/ ((points at the locations where holes will be made in the piece)) [Fig. 5.6]
	18. MON:	so what happens if you punch only half of the piece/ the rubber part will exert pressure and-
	19. DON:	it will stick/
	20. MON:	it will straighten the piece\

This sequence highlights practices through which DON actively participates to the learning interaction and seems to position himself as an apprentice of a certain kind. These participation practices are based on a wide range of multimodal and interactional resources. In relation to this, it is important to note that DON is not maintaining himself in a ratified recipient position but is constantly self-selecting himself as a speaker. His turns are not explicitly elicited by the trainer but are spontaneously provided to the audience. For instance, DON's anticipation work is detectable in (5). DON's utterance "*this ejects the piece*" anticipates MON's purpose and fits into MON's ongoing explanation ("*and/*") and continues it. Similarly, in (19), DON's comment ("*it will stick*") interrupts and continues the trainer's talk ("*the rubber part will exert pressure and-*"). MON ratifies and approves such "intrusions" by retelling the same sentence into his own explanation ("*this will rejects the piece/*"). Thus, recurrently, DON anticipates MON's discourse. Here, it is worth noting that because MON ratifies these anticipations in front of the group of apprentices, he affords contextual legitimacy and even consideration to DON. These anticipations do not only consist in fine-grained alignments to the trainers' instructions but also function as outstanding interactional positioning devices.

In various occasions, DON "stands out" compared to his mates. He demarcates himself through active forms of participation and specific ways to enact agency.

Fig. 5.4 DON expresses facial satisfaction after MON's approval

Similar to what happened in excerpt 1, such demarcation practices are observable, for example, when DON attempts an answer (11–13) to an implicit question raised by MON ("*but we will not use it now and I will tell you why in a moment*\"). In other words, DON does not align to MON's declared intention to provide an answer at a later stage but delivers it to the group (13). The audacity of DON's contribution seems to be highlighted by MON's exclamation ("*very clever indeed*\"). Thus, MON is somehow constrained to ratify and positively assess DON's answer (".. *yes exactly*\"). He thereby rewards him in front of the whole group (see Fig. 5.4).

This sequence shows how far DON goes in terms of participative agency. For example, when FRA asks about the use of the rubber part in the present context ("*we won't use this*/", 9), DON elaborates MON's answer ("*no we won't*", 10) and attempts to provide an explanation ("*yeah because because*", 11), overlapped by BER's own hypothesis ("*it's because we punch a very thin piece*\", 12). But BER's attempt to explain why the rubber part should not be used here is again immediately, spontaneously and explicitly rejected by DON ("*no that's not the reason*", 13), who proposes an alternative answer ("*it's because we punch on the sides of the piece and not in the middle*\", 13). DON's last contribution (13) seems not to be understood by all members of the group, as attested by FRA's request for additional explanation ("*why*/", 15). When MON starts his explanation ("*simply because*"), DON overlaps him (17) and, without any permission, again relays him on the explanation addressed to his mate. In other words, one could consider that DON temporarily takes a form of trainer's position. Such an "excommunication" (or misalignment) could be potentially face threatening for the trainer, especially because of the presence of other apprentices. But instead of a conflictual role replacement, MON once again ratifies DON's behavior and simply retakes his trainer's position by pursuing the instruction sequence (17 to end). According to this, MON even affords numerous opportunities for the apprentice to establish a form of visibility and centrality within the group. For instance, early on the "theory"

Fig. 5.5 MON establishing eye contact with DON

Fig. 5.6 DON points at the positions where holes will be made in the work piece

sequence, MON establishes eye contact with DON and visually selects him as an addressed recipient (see Fig. 5.5).

It is worth mentioning that DON's recurrent demarcation practices do not rely on talk exclusively. They also involve a specific relation to space and to the material arrangement shaping the physical setting in which instruction takes place. When DON "stands out" and provides answers to questions implicitly or explicitly raised by the trainer or other apprentices, he comes close to the press and performs indexical gestures pointing at specific locations of the piece (see Fig. 5.6). In doing so, he enters a physical space whose access is limited to the trainer, and from which the other apprentices gathered as a group remain distant.

These two short examples illustrate the complex and constant interactional work an apprentice may accomplish to make a socially relevant impression of himself. It is thus throughout interactional practices (i.e. standing out, promptly and correctly answering, anticipating, etc.) that local centrality, visibility, legitimacy and value may be gained step by step in front of the instructor and the rest of the group as well. Above all, the analysis highlights the fact that gaining social recognition is mostly a collective accomplishment that occurs locally by the negotiation of each other's interactional positions and places. In other words, these forms of visibility and centrality are also afforded by the trainer as opportunities offered to DON to "stand out" and endorse a form of dominant position within the group. Thus, social recognition can be seen as locally and collectively accomplished. This is made particularly visible in the next example below.

3. "*theory! right?*" (Film No 209, 32′27 – 34′37)

32′27	1. MON:	yeah that's very good\ (2) ((MON examines a workpiece machined by DON)) very very good\ so now you just have to file your piece\
	2. DON:	well but when do we have to make the small groove\ how\
32′45	3. MON:	yeah right the groove/ with the milling machine\ but all the milling machines are occupied\
	4. DON:	then I'll do later after- but once I finish to file what should I do\ I'll take out the pieces of the tour machine/
	5. MON:	XXX you don't file now\ mhm
	6. DON:	I'll make the pieces now
	7. MON:	you can make the groove because he is doing the X ((MON points at another apprentice working with the milling machine))
33′06	8. DON:	well you can make the groove by showing to him/ at the same time that will be the theory as well/
	9. MON:	let me THINK\ ok yes let's do that\
	10. MON>DON:	I need the wrench over there/ ((points at the milling machine))
	11. DON:	it should be there/
33′33	12. MON:	allen key and then we will do a theory\
	13. DON:	sir actually there is no need for an allen key/ some milling machines already have the right profile\ like this ((shows a workpiece))
	14. MON:	no no no
	15. DON:	why not/ we would like to use those with already the right profile\
33′47	16. MON:	because we have to make the groove inside\
	17. DON:	yeah
	18. MON:	we don't have a milling machine with the right profile ((producing a V with his hands))
	19. DON:	like a V/
	20. MON:	you see the middle part of the milling machine is not gonna machine\ yes it's a V\
	21. DON:	yes but there are milling machines with a V profile over there ((indicates a direction))\
	22. MON:	yes but they have a flat bottom\
	23. DON:	oh okay yes
	24. MON:	because the tip\ . does not machine XXXX
	25. DON:	yeah yeah it's okay now I see\ yes I see
	26. MON:	you cannot remove material so it does not work\

(continued)

(continued)

	27. DON:	yes yes it's okay now I see
34′10	28. MON:	so is that milling machine XX
	29. DON>MON:	THEORY/ is that right/ [Fig. 5.7]
	30. MON:	yeah . if it makes you happy\
	31. DON:	theory can I shout/
	32. MON:	go ahead then\
	33. DON:	THEORY/ ((shouts to his mates)) ((laughs))
	34. MON:	((turns to the camera and smiles))
	35. DON:	theory yeah theory ((whispers))
	36. ??:	X just a last time X
	37. DON:	theory
	38. MON>??:	come here to express yourself to the micro\
	39. DON>??:	come here to say what you don't like\
34′35	40. MON:	THEORY ((shouts to inform the other apprentices)) [Fig. 5.8]
	41. DON:	yeah/ seriously\ ((says to his mates around the workplace))
	42. MON > DON:	go ahead then and tool me up the milling machine\

This sequence highlights the interactional processes through which the trainer (MON) and apprentices (in particular DON) reciprocally negotiate their position. In the first part of the sequence, DON shows a machined workpiece for MON's assessment, a necessary step before moving to the next learning assignment. This opens a section in which DON appears particularly active by strongly soliciting MON's attention. He displays centrality by acting as an expert who reminds the trainer of a number of aspects ("*well but when do we have to make the small groove\ how*", 2; "*then I'll do later after- but once I finish to file what should I do\ I'll take out the pieces of the tour machine/*", 4), compelling him to react ("*yeah right the groove/ (. . .)*", 3) and negotiating the issue (4–9). Moreover, DON smartly suggests a change within the scheduled learning program ("*well you can make the groove by showing to him/ at the same time that will be the theory as well/*", 8) pushing MON to adapt the ongoing activity to his work in progress ("*let me THINK\ ok yes let's do that*", 9). A little later, DON's growing expert position is also made visible when he argues against MON's suggestion to use an allen key to accomplish the task ("*mister actually there is no need for an allen key/ some milling machines already have the right profile\ like this*", 13). He opens another confrontation in which MON's expert position is challenged. MON responds by explaining step by step the reasons why an allen key is needed in the present case (14–22). Thus, he replaces DON in a non-expert position. DON seems to hardly accept such a replacement and displays forms of resistance to endorse the position, as illustrated by his prompt ratification and reassuring stances ("*yeah yeah it's okay now I see\ yes I see*", 25; "*yes yes it's okay now I see*", 27).

This first part of the sequence shows the constant interactional work an apprentice needs to accomplish in different learning situations in order to step forward from a peripheral to a more central position within the learning community of practice. At the same time, the sequence also highlights the negotiation and repositioning work such a behavior induces in the involved counterpart, here the trainer. This reciprocity or interdependency is particularly visible in the second part of the sequence (29–42).

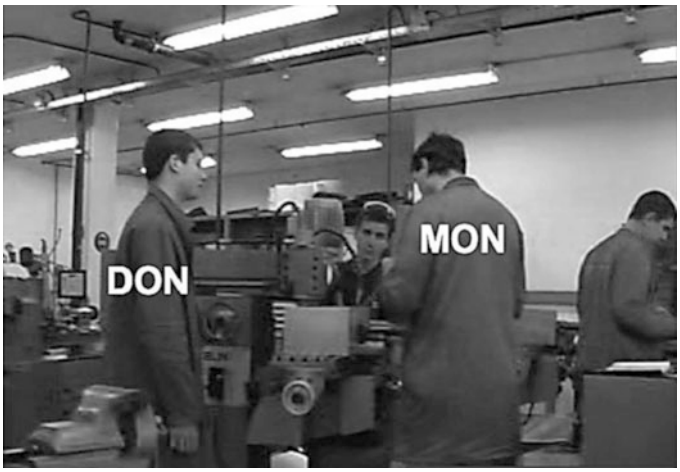

Fig. 5.7 DON asks to MON the authorization to convoke a "theory" moment

Indeed, DON seems to achieve centrality and recognition by inducing a collaborative work. Firstly, he explicitly involves his mates in order to have public "audience" in front of which to display a valuable image of himself. He thus asks MON the authorization (29 et 31) to call up his mates, who are working at their desks, for a "theory" moment. This is what he does ("*THEORY*/", 33) after MON's approval (30 et 32). In such a way, DON seems to take on MON's trainer/leader role in deciding the moment for theory. He is thus enacting authority compared to his mates. It is noticeable that such a standing out position is somehow unexpected for DON and for the mates as well. In fact, signs of discomfort or unease are manifest in DON's behaviors: laughs (33), reiteration (35 and 37) or confirmation ("*yeah*/ *seriously*\ *((says to his mates around the workplace))*", 41). Similarly, other apprentices seem to check DON's calling by waiting for MON's confirmation (40). With respect to this, the sequence shows how far DON is dependant on MON to get visibility and centrality. Indeed, MON affords DON the opportunity to present himself in a favorable light in two ways. First, he allows him to call up a "theory" and, by doing so, he lets him temporarily endorse the trainer's role (see Fig. 5.7).

Although DON's request highlights the dominant position of MON as a trainer, dependency is not one-sided. By recognizing authority to MON, DON automatically brings back legitimacy to MON and confirms his trainer's position.

Secondly, DON also needs MON's direct intervention within the interaction between his mates and himself. In other words, MON's confirmation (40) indirectly affords legitimacy to DON's authority claim (see Fig. 5.8).

This form of interdependency between the apprentice and the trainer is also obvious from a multimodal point of view. As visible in Fig. 5.8, MON and DON are geographically constituting a form of alliance conveying reciprocal legitimacy in front of the group of apprentices.

Fig. 5.8 MON addresses the group of apprentices and confirms for them the "theory" moment

The examples analyzed so far can be seen as privileged empirical evidence to the important interactional work participants to vocational training practices have to accomplish in order to position themselves in specific communities of practice. The first two sequences highlight interactional practices of agency an apprentice may display in order to gain visibility and centrality within the learning community of practice and, thus, to achieve legitimacy and value on his way to less peripheral positions. With the third sequence, a particular stress is put on the collective accomplishment for symbolic recognition. If impression management practices are of course an essential resource, our analysis also highlights that the path from periphery to center requires a certain contribution and complicity from the trainer in the tutorial guidance he offers to apprentices. To display a legitimate or valuable impression, one needs others' approval. This approval has to be negotiated in interactions through relational positioning and placement. As stressed in the analysis above, these forms of visibility and centrality do not only rely on the apprentice's specific ways to engage in interaction. They are also afforded by the trainer as opportunities for the apprentice to "stand out" and endorse a form of dominant position within the group.

With respect to this network of interactional interdependency among actors involved in training practices, an interactional analysis sheds light on the "vulnerability" of apprentices' position in search of centrality, recognition and legitimacy. This is also true as regards the role of the trainer. Despite his position of authority, the trainer also relies on apprentices for establishing his own legitimate status. Indeed, as mentioned above, the trainer must frequently negotiate with the trainee (DON) to maintain his position of expert and his authority. In this sense, forms of social recognition can be seen as locally and collectively accomplished.

5.5 Examples of Unvalued Forms of Participation

5.5.1 Becoming Peripheral

In this section we contrast the situations analyzed above with a range of other examples that concern Rodrigo (ROD), another apprentice belonging to the same group. These examples take place in the same setting as the one referred to previously. However, ROD experiences a totally different trajectory of learning than the one we have just illustrated above and faces forms of social recognition that differ from the ones applicable to DON's case. This is what we want to show in the following paragraphs through the analysis of another sequence of interaction.

ROD is also a first year apprentice in automation, but has a different cultural background from the one belonging to DON. Rodrigo emigrated from the former Portuguese colony of Cape Verde and is not a native French-speaker. He experienced a non-linear transition from compulsory school to the VET system. Because of his poor achievements in both numeracy and literacy, he attended a 1-year preapprenticeship program[3] before entering the vocational education system. After having failed the admission test for an electrician apprenticeship program, he decided to enroll as an automation specialist apprentice, passed the test and finally signed an apprenticeship contract with a company after several unsuccessful attempts. He finally started his apprenticeship at the age of 18 and began with a 6 months period within the training center we are interested in.

In order to illustrate ROD's specific social position within his class in the training center, we analyze a sequence of interaction that occurs approximately 3 months after the examples presented above, at the end of the 6-month training period. The sequence relates to a period of training specifically dedicated to the learning of electric wiring. The activity setting underlying this sequence is different from a "theory" gathering. It can be described as an individual practical exercise consisting of producing a basic electric command system named "motor controller" according to explicit technical specifications. This kind of exercise anticipates rather central and typical tasks automation specialists are expected to carry out in the workplace. It unfolds in the following steps. First, the trainer delivers general instructions to the group of apprentices. He gives a list of technical specifications apprentices will have to implement with the motor controller device they are to produce. These instructions can be summarised as follows: "I want the motor to be set in motion and an indicator to light up when I press the button Start. I want the motor to stop and the indicator to go out when I press the button Stop. I want the motor to stop automatically and an indicator to light up when the motor overheats." (Field notes, 26th January 2006). Then, apprentices have to write down the instructions on their notebook, to draw the circuit diagram following these instructions, and finally to

[3] This is a program, offered by the department of public instruction of Geneva, that aimed to prepare young people to enter VET system.

assemble the electric components according to the diagram. Apprentices are working individually. They are dispatched on separate workbenches located in the same workshop and are expected to progress through the various steps of the exercise. The trainer regularly moves from one apprentice to the other and makes sure that apprentices are not making any mistakes in producing their motor controlling system.

The selected sequence of interaction documents ROD's engagement in this exercise, and specifically in its first step, naming the task of giving a written form to the trainer's instructions. We take this sequence as characteristic of the interactions occurring between ROD and MON while the apprentice is engaged in this exercise. In our analysis, we pay attention to the attitudes displayed towards ROD by the trainer and other apprentices sharing the same training context. We also aim to describe the ways ROD is socially categorized by the trainer and his peers and how these categories result from specific forms of engagement in interaction. The portrait that will result from our analysis will be substantially remote from the previous one referring to DON, not only in terms of social recognition but also in terms of engagement and positioning.

5.5.2 *Losing Control over the Activity: A Regressive Positioning in Interaction*

When the selected sequence of interaction starts, ROD is behind in comparison with the rest of the group. He is just beginning the exercise of the "motor controller" whereas most of the other apprentices have nearly finished it. ROD is facing difficulties in understanding what is required in the first step of the exercise and does not make any progress in writing down the trainer's instructions. MON observes this, approaches ROD and initiates a verbal exchange with him, while other apprentices like Donald (DON), Frank (FRA), Samuel (SAM) and Kevin (KEV) keep on working individually in the same area.

4. "I'm going to start at the beginning" (Film No 216, 02′16–05′24)

02′16	1. ROD:	((is sitting at his workbench, a pen in his hand and a notebook in front of him)) [Fig. 5.9] the diagram yes but: XX
	2. MON:	((is leaning upon a cupboard on the left of ROD's desk)) [Fig. 5.9] no but the function of the device what kind of device is it it is what I want you to write\
	3. ROD:	it is a device when I press the button stop\
	4. MON:	I gave you the title motor's controller\ now er . KEV told you what he wanted now I'd like that . what he explained to you/ you write it down\ clearly simply and clearly\ . a motor's controller/ I press the button bladibladibla . er the motor er: starts/ . I press the button X what happens to the motor bladibladibla you write it in two sentences/ . if there is a problem with the motor what happens etcetera\ finished\ . . . two or three sentences\ the instructions according to the device\ .. you know what you have to do now\ . have you understood/ . what do you have to do\

(continued)

(continued)

	5. DON:	((is working on his workbench located in front of ROD)) he doesn't know/
03′03	6. ROD:	yes but the drawing er of the
	7. MON:	no but I'm asking you-
	8. ROD:	of the new components I will use I don't know XX
	9. MON:	yes but it's- it's not what I'm asking you I'm asking you if you have understood what you have to do
	10. ROD:	yes XX
	11. MON:	so what do you have to do\
	12. ROD:	I'm going to write that: . I'm going to start at the beginning\ I mean er
	13. MON:	yes no but . I'm asking you the motor's function ((laughs))
	14.	((the other apprentices laugh))
	15. ROD:	((laughs and looks at SAM who is behind him)) [Fig. 5.10] X when I press the button/ X the button START/
	16. SAM:	((is working is working on his workbench located behind ROD)) XX you're not going to begin at the end/
	17. ROD:	I press the button START the the motor sets in motion/ then I press the button on . it stops/
	18. DON:	it's like in video games\
	19. MON:	you press what/
	20. SAM:	you say s1 s2\ you have the relay you have the relay X
	21. ROD:	yeah when I press a button
	22. MON:	yeah/
	23. ROD:	XX
	24. MON:	yeah ok/
	25. ROD:	it starts:
	26. FRA:	((is sitting on the right of ROD's bench)) that's playstation button start you press the button select it stops\
	27. ROD:	((looks at FRA and smiles)) [Fig. 5.10]
	28. MON:	yeah/
	29. ROD:	((turns his head toward MON)) that that er it makes the motor turn/ then when I press the button on it:
[...]		
04′41	57. MON:	you have forgotten everything haven't you/ (4 sec.) isn't it you who told me that you had to eat a lot not to forget\
	58. ROD:	eating a lot not to forget/ ((laughs))
	59. MON:	you haven't eaten a lot today have you/
	60. ROD:	((laughs))
	61. MON:	((stares at ROD)) so\ . if the motor overheats/
	62. ROD:	but I didn't know that XX
	63. MON:	er there must be an indicator that lights up on the control board/ ok/ and then . the motor has to stop\ so I'd like first that you write it down/ in two or three lines/ clearly\ .. ok/ . and when you have done it we'll see the next step\
	64. ROD:	what is the name er: . of the device there/ ((mimics the form of the device with his hands))
	65. MON:	motor controller\ ((moves away))
05′24	66. ROD:	motor controller/

Fig. 5.9 ROD and MON establish visual contact

At the beginning of this excerpt, ROD displays difficulties in understanding the instructions and in identifying the correct sequences of tasks required by the procedure. He mentions the drawing of the circuit diagram ("*the diagram yes but:*", 1) in a context where he has not finished writing down the various functions and specifications related to the device to be produced.

To address these difficulties, the trainer shapes an interactional space in which ROD and himself establish visual contact and select themselves as ratified participants (see Fig. 5.9).

Within this interactional space, the trainer's response to ROD's difficulties consists, at the beginning of the interaction, in helping him to progress in the first step of the exercise. He guides him through the realization of the current task, that is the writing (and first the verbalization) of the instructions related to the "motor controller". His guidance (Billett 2001) takes the form of a scaffolding dialogue (Wood et al. 1976) that supports the apprentice, through verbal and non-verbal resources, towards the mastering of a task that he is unable to grasp. This scaffolding dialogue can be seen as fulfilling various functions in the course of the interaction. First, the trainer tries to maintain ROD's orientation towards the current task (the writing of the instructions), because ROD is anticipating the next step of the exercise (the drawing of the diagram, 1). It is manifest in the way MON retells ROD what he has to do. The trainer insists on one hand on the writing task itself: "*now er . KEV*[4] *told you what he wanted now I'd like that . what he explained to you/you write it down\ clearly simply and clearly*" (4). On the other hand he insists on the content of the instructions he has to write down: "*no but the function of the device what kind of device is it it is what I want you to write*" (2). Because of ROD's persistence to anticipate the next step ("*yes but the drawing er of the of the new components I will use I don't know XX*", 6, 8) and his difficulties to verbalize precisely what he has to write ("*I'm going to write that: . I'm going to start at the beginning\ I mean er*", 12), the trainer has to retell it several times. Interestingly, MON enacts specific discursive formats for delivering his instructions. In numerous

[4] The trainer refers to the instructions that he gave to the group of apprentices and that have been retold to ROD by KEV.

occasions, he asks questions to ROD and invites him to give a verbal account of the task ("*what kind of device is it it is what I want you to write*\", 2; "*what do you have to do*\", 4). He also initiates exchanges in which he wants to establish ROD's understanding of the task ("*have you understood*/", 4; "*I'm asking you if you have understood what you have to do*", 9). In this perspective, his scaffolding fulfils another function that concerns the recruitment of the apprentice in the task and his encouragement (Wood et al. 1976). Indeed, the trainer lets ROD formulate the instructions by himself, ratifies his first attempts and encourages him to continue ("*yeah*/", 22; "*yeah ok*/", 24; "*yeah*/", 28).

However, ROD engages neither easily nor efficiently in these scaffolding sequences of interaction. For instance, he does not take his turns immediately after highly visible transition points, as attested by the growing number of pauses in 4, obliging MON to keep on talking and rephrasing his requests for confirmation addressed to the apprentice ("*two or three sentences*\ *the instructions according to the device*\ .. *you know what you have to do now*\ . *have you understood*/ . *what do you have to do*\"). ROD also fails to fulfil expectations regarding the level of understanding of the task. He does not succeed in producing valid verbal accounts of the work procedure and attempts a succession of answers that are regarded by other participants as inadequate. If the trainer manifests patience at first, he puts a stop to the questioning dialogue after a while and expresses a negative evaluation of ROD's state of knowledge: "*you have forgotten everything haven't you*/" (57). To that negative evaluation he adds an ironical comment concerning the reason of his forgetfulness: "*isn't it you who told me that you had to eat a lot not to forget*\" (57); "*you haven't eaten a lot today have you*/" (59). With this mocking remark, that represents a threat to ROD's face, the trainer breaks off the scaffolding guidance he has been offering to him so far. Indeed, from this moment, the trainer does not try to help ROD verbalize the instructions any more, but he rather retells himself the missing part of it: "*er there must be an indicator that lights up on the control board*/ *ok*/*and then* . *the motor has to stop*\" (63).

Regarding the evolution of the trainer's guidance, we can first note that MON's efforts to support ROD do not lead the apprentice to a successful accomplishment of the task at hand. The trainer's scaffolding attempts end in a collective but unbalanced accomplishment in which it is finally the trainer who verbalizes most of the instructions ROD has to write down. Consequently, MON's participation in the task is growing whereas ROD's participation is reciprocally characterized by a form of regression. The data also show that if the trainer's initial reaction was to help ROD in the accomplishment of the task, ROD is negatively evaluated and mocked by the trainer at the end of the sequence.

The second aspect that deserves particular attention is the presence and participation of the other apprentices. This participation is first related to the specific way space is designed and experienced in this excerpt: interaction between MON and ROD takes place in an open space where other apprentices are working as well and can overhear any interaction occurring around. This participation is also related to the fact that MON's support to ROD involves oral and thus public forms of actions such as rephrasing a written task that are supposed to be accomplished individually

and in private. Thus, if other apprentices take on the roles of mere listeners or "overhearers" in Goffmanian terms at first, they soon participate more actively as "unaddressed recipients" in the interaction between MON and ROD. As we will see, their interventions contribute to the building of a negative image of ROD. DON is the first one who intervenes. Whereas MON asks ROD to retell what he has to do (see above, 4), DON affirms in a loud voice that ROD does not know (5). It is then the group of apprentices who laughs at ROD's verbalized intention to start at the beginning (see above, 15) and SAM who adds a mocking remark: "*you're not going to begin at the end*/" (16). Next, DON and FRA compare ROD's explanation concerning the "motor controller" (15, 17) to a video game: "*it's like in video games*\" (18); "*that's playstation button start you press the button select it stops*\" (26). This comparison that associates ROD's explanation to a playful activity that is external to the world of work denigrates it. Finally, SAM spontaneously intervenes in order to correct ROD concerning the terms he is using and prompts him to the appropriate ones: "*you say s1 s2*\ *you have the relay you have the relay X*" (20). Thus, ROD's regressive participation is not only shaped by MON's growing part in undertaking the task. It is also reinforced by the numerous interventions of the rest of the group of apprentices and their progressive tendency to autoselect themselves as ratified and legitimate participants in the context of interaction. These spontaneous interventions do not bring any form of support to ROD. Except SAM's last intervention in (20), they are very poor in terms of knowledge contents and lead to depreciate ROD with regard to the group. Even SAM's last intervention, though reestablishing a correct terminology, can be seen as face threatening to ROD in the sense that it categorizes him as an apprentice who knows less than his peers.

If we now turn to ROD's forms of engagement into this sequence of training, a first element we can point out is the difficulties he displays in progressing in the task at hand in spite of MON's guidance. ROD's difficulties to progress can be illustrated by his last question addressed to MON. Indeed, at the end of the interaction and after the trainer's various attempts to help him, ROD asks the name of the device, the "motor controller", that is the central subject of the exercise: "*what is the name er: . of the device there*/" (64). This question reveals his difficulty to understand what is at stake in the exercise and his lack of progression in such understanding. Second, it is interesting to observe how ROD reacts to interventions initiated by MON and other apprentices. First, it is noticeable that ROD engages in the interaction with the trainer and accepts MON's guidance. At the same time, he strongly insists on elements of the task he does not know in order to emphasize his difficulties (6, 8, 62). However, it is precisely these confessions of ignorance that are negatively evaluated by MON. Then, it is also interesting to note how ROD either ignores deprecating comments uttered by MON or other apprentices (he ignores DON's comment on his ignorance, see above, 5) or laughs at them (he laughs at MON's mocking remark, 58, 60; he joins in the other apprentices' laughter, 15, and smiles to the comparison of his explanation to a video game, 27, see Fig. 5.10).

Fig. 5.10 ROD laughs with the other apprentices

These attitudes are well identified strategies by which ROD attempts to counterbalance the rather uncomfortable position he is placed in and to convey a positive image of himself (Goffman 1959).

The elements developed above stress a strong contrast between ROD's lack of progression in the task and the ways others apprentices increasingly participate in an interactional space they are not supposed to be part of. Indeed, the participation of the other apprentices gradually affects ROD's own interactional participatory practices. As interaction unfolds, ROD becomes the undesired centre of a public arena, in which he progressively loses his owns rights to speak. As other apprentices enter the floor, ROD's turns are almost systematically overlapped (15, 21, 23). They are also intertwined with responses addressed not exclusively to the trainer, but to other apprentices as well. For instance, in line 15, ROD turns towards SAM when elaborating his answer ("*when I press the button/X the button START/*"). As evidenced by ROD's constant changing body orientations (see Fig. 5.10), this more complex participation framework raises new challenges for ROD's participation. It introduces a form of multiactivity in which ROD is expected at the same time to follow the teacher's scaffolding strategy and to respond to the teasing initiated by his mates. From what can be observed in the data, ROD's repertoire for responding to these challenges appears to be limited. It mainly consists of ignoring the deprecating comments or laughing as an ultimate attempt to preserve a positive image of himself within the public arena.

At a social level, our analysis underlines the way ROD is progressively depreciated, mocked and recognized as a weak apprentice by the trainer and his peers. In this perspective, it highlights how the public dimension of the interaction between ROD and MON contributes to ROD's progressive and collective categorization as a weak apprentice: the public nature of his difficulties and his need for guidance influence the way other apprentices recognize ROD and reinforce negative and mocking remarks addressed to him. It is noticeable that the trainer does not verbally react to the other apprentices' spontaneous interventions that threaten ROD's face. ROD struggles alone to give a positive image of himself. His efforts are finally unsuccessful and he seems to lose control not only on the task he his carrying out but also on taking a valued and legitimate position in the interaction.

The phenomena highlighted in this sequence are reduplicated and even amplified in following interactions between MON and ROD concerning further steps of the exercise. Without going into a detailed description, similar sorts of interaction patterns can be illustrated with reference to two sequences of interaction we propose to briefly summarize. In the first sequence (216, 55′03′–01′01′53), MON offers to explain to ROD how to proceed in drawing the circuit diagram. In order to do so, he takes him along to the blackboard and guides him in the drawing. However, ROD displays many difficulties, both in representing the electric components and in understanding the concepts that lay behind. If MON displays patience and makes efforts to guide ROD in the drawing and in the understanding of the related notions at the beginning, the interaction ends with MON losing patience, making fun of the apprentice and recognizing him as a weak apprentice ("*you're a real case/I'm sorry but*\" 216, 01′01′40). Again, this interaction happens in front of the rest of the group. Moreover, the central position of the blackboard in the room makes it more public and highlights the "judging arena" (Dodier 1993) that represents the group of apprentices. In this context, apprentices are very active in interaction. They make fun of ROD and ratify MON's negative evaluations. In this way, ROD's collective categorization as a weak apprentice goes on. This categorization results progressively in a form of marginalization that can be further illustrated with a second example. This second interaction (217, 12′33–16′21) takes place between the apprentices and the trainer. It concerns the difference between automation specialists (high-skilled workers who have a diploma and are in charge of the tasks of conception) and electric assemblers (low-skilled workers who have no diploma and only assemble electric components without understanding what they are doing). In this context where two categories of professions are distinguished, ROD is soon identified as an assembler in opposition to other apprentices who see themselves as automation specialists.

5. "Cape Verde, he's just assembling"

14′13	1. FRA:	Cape Verde he's just assembling X\
	2. DON:	but he's a looser X\
	3. MON:	((is leaning upon DON's desk)) yeah but he is assembling according to what/
14′20	4. FRA:	according to our plans\

In the excerpt transcribed above, ROD is categorized as a useless person (2), and his Cape Verdian origin is stigmatized in the form of a nickname (1). Most importantly, this categorization is not only driven by the apprentices but also ratified and reinforced by the trainer (3), who elaborates on depreciative comments made by FRA and DON.

5.6 Concluding Remarks

Participating and becoming full members of a learning community of practice is not just a personal or individual affair. Neither is it exclusively a matter of willingness. On the basis of some examples, the analyses presented in this paper reveal that apprentices need to actively work out their participation during training interactions. Within the complexity of interactional exchanges, they actually have to struggle to gain legitimacy and social recognition in relation with other actors involved. By adopting a Goffmanian perspective on social recognition, we shed light on real practices where valuable images are displayed and locally managed. The case of DON highlights a concern for positioning through particularly recurrent and insistent practices of visibility and centrality. By contrast, the case of ROD shows how participation needs to be legitimate, that is conform to what is expected from a first year apprentice, before being considered as valuable. In ROD's case, the challenges set towards a full recognition of a legitimate participation lead him to progressively lose control not only on the activity but also on the negotiation of his position.

At a theoretical level, the two contrasting cases analyzed here provide a detailed understanding of the strong interdependence linking the different actors involved in an interactional setting. Managing impression and gaining social recognition is largely a collective work in which each part needs the other to make his position and place approved and recognized. In that perspective, participation is less a matter of access to specific practices than a negotiation of interactional positions. Our analyses suggest that social roles and interactional positions are somehow vulnerable, due to the interactional processes and the reciprocal dependency between the interlocutors. As illustrated above, the apprentices' struggle to become full community members also constrains the trainer to permanently display or prove his expert position and his authority and consequently his legitimacy.

In turn, this brings us to consider the great importance of tutorial guidance in vocational training interactions. Tutorial guidance, either in training centers or at the workplace, has effects not only on the learning dimension but also on the issue of identity construction. As showed in our analysis, the trainer plays a central role in enhancing and consolidating trainees' social recognition. Through an interactional and multimodal perspective on vocational training interactions, we have attempted to reveal the interactional micro-mechanisms through which identities tend to sediment and become more and more fixed. We consider this perspective of primary importance to understand how one apprentice's path from the periphery of a learning community to its center is reflected in the interactional processes that can engender more or less "successful" trajectories of learning.

To go beyond an exploratory investigation, it will be interesting to pursue our analysis in two main directions: a contrastive perspective and a longitudinal one. A contrastive perspective would allow to develop the comparison we have started to investigate in this issue and to put to the fore different forms of engagement and social recognition. A longitudinal perspective following several apprentices along their learning trajectory and in different training contexts would enable us to work on

their evolution in terms of learning, identity construction, engagement and recognition. Both perspectives would help us to deepen our reflection on the factors that may contribute to the construction of successful or unsuccessful trajectories of learning.

Beyond data description and analytical understanding, what then are the responses a researcher could propose in order to bring his own resources and changes in the realities he investigates? One particularly promising avenue currently being explored by our team is to use the empirical material collected during our research in the context of training programs addressed to vocational trainers. As shown by the case studies presented in this paper, vocational trainers play an active role in the transition process experienced by apprentices. In consonance with Billett's work (Billett 2001), research results presented here show an urgent need to increase the level of pedagogical qualification and awareness of trainers in the field of vocational education to enhance the overall quality of the guidance provided in training centres and workplaces. Applying an interactional perspective to empirical data certainly does not solve the complex issue of attrition in apprenticeship programs. However, it can make visible the sorts of difficulties faced by apprentices when joining training programs and it can also help trainers and experienced workers to become more reflexive about their role in assisting these apprentices to accomplish consistent transitions into working lives.

Appendix: Transcription Conventions

or ..	pause
5s	longer pause
a:	vowel lengthening
-	interrupted segment
/	rising tone
\	falling tone
CAPitals	accentuated segment
((action, movement or gesture))	non-verbal behavior
(uncertain)	segments whose transcription is uncertain
MON > ROD	selection of addressed recipient
XX	unintelligible segment
??	unidentifiable speaker
underlined segment	overlapping

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Chapter 6
Agentic Pathways Toward Fulfillment in Work

Jeylan T. Mortimer, Mike Vuolo, and Jeremy Staff

6.1 Introduction: Work and Personal Fulfillment

> Far and away the best prize that life has to offer is the chance to work hard at work worth doing. Theodore Roosevelt

It is a truism that work is an essential component of individual well-being. Marx (1964) considered working a natural expression of human goals, interests, and capacities, and a source of profound well-being. Psychologists, from Freud (1957) onwards, have recognized the critical importance of meaningful work for mental health. Csikszentmihalyi (1990) used the term, "flow," to capture "optimal experience," the highest level of human fulfillment. When experiencing this state, individuals are so completely caught up in their endeavors that time seemingly stands still. Tellingly, Csikszentmihalyi found that people were more likely to report this state of flow while working than in a wide range of other activities, including leisure. Vocational psychologists, at least since Herzberg (1966), have distinguished between extrinsic job characteristics, including pay and the various working conditions which contribute to the safety or ease of employment, which he called "hygienes"; and intrinsic job features, or "motivators", the characteristics of the work itself, the tasks experienced as more or less engaging. For Herzberg, the "hygienes" can lessen job dissatisfaction, but they do not generate true satisfaction or fulfillment in work. Still, the "vertical" dimensions of work (Morris and Murphy 1959), such as occupational

J.T. Mortimer (✉)
Department of Sociology, University of Minnesota, 909 Social Sciences, 267 19th Ave S, Minneapolis, MN 55455, USA
e-mail: morti002@umn.edu

M. Vuolo
Department of Sociology, Purdue University, 700 W. State S, West Lafayette, IN 47907, USA

J. Staff
Department of Sociology, Pennsylvania State University, 611 Oswald Tower, University Park, PA 16802-6211, USA

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prestige and pay rates, are important because socioeconomic status is derived mainly from employment. Vertical dimensions of work are key determinants of a person's (or family's) place in the community, purchasing power, economic security, and style of life (Duncan et al. 1972; Reiss 1961).

A long tradition of research in vocational psychology has examined job design features that constitute "motivators," in Herzberg's sense, including work autonomy, skill variety, task identity, task significance, and feedback from the job (Hackman and Oldham 1976). A meta-analysis of 259 studies (Humphrey et al. 2007) confirmed the continuing importance of these and other (e.g., task variety, job complexity) design features for job satisfaction, job involvement, and numerous other indicators of positive work attitudes and, to a lesser extent, work performance. Similarly, Kohn and Schooler (Kohn 1969; Kohn and Schooler 1983) show that the intrinsic "conditions of work" matter for a wide range of individual outcomes, or dimensions of "psychological functioning." Kohn and Schooler's key insight was that social class mattered for individual values, self-concepts, cognitive flexibility, and ways of viewing the world precisely because higher status work tends to be accompanied by higher quality work experiences. Specifically, occupations of higher status generally involve greater self-direction, as indicated by freedom from close supervision, complex occupational tasks, and variety.

The findings of Kohn and Schooler's pathbreaking studies have been confirmed by many subsequent investigations (see Mortimer and Lorence 1995, for a review). For example, Mortimer and her colleagues (Lorence and Mortimer 1985; Mortimer et al. 1988) demonstrated that work autonomy, the freedom to make one's own decisions on the job, has positive effects on adult job satisfaction and commitment. Numerous other studies have heralded the importance of self-direction and other intrinsic rewards for physical health, mental health, and well-being (Blustein 2008; Mortimer et al. 2002; Ross and Mirowsky 2003). Intrinsic rewards enable expression of the worker's interests and abilities and provide an outlet for creativity.

6.2 How Do Young People Obtain Fulfilling Work?

Given mounting evidence that the intrinsic and extrinsic rewards of work are critical sources of personal fulfillment, it becomes important to know how young people manage to acquire jobs that provide these diverse rewards during the school-to-work transition. Sociologists in the prominent Wisconsin School of Status Attainment (Sewell and Hauser 1975; Featherman 1980; Kerckhoff 1995, 2003; Warren et al. 2002), in tracing the linkages between family socioeconomic origin and offspring socioeconomic destination, highlight the importance of significant others' influence – especially parents and teachers, but also peers – in encouraging youth to have high educational and occupational aspirations, which, in turn, foster high educational attainment and prestigious jobs. Their research on intergenerational occupational mobility, based largely on a cohort of graduating seniors in 1957,

identifies adolescent aspirations as key precursors to socioeconomic attainment (see also Spenner and Featherman 1978).

Vocational psychologists highlight the importance of finding a good "fit" between individual values, needs, and abilities and the experiences and rewards to be found in particular occupations (Fouad 2007). Those who succeed in acquiring jobs that match their personal dispositions have greater job satisfaction and more stable work careers than those who do not. Classical vocational psychologists like Ginzberg et al. (1951) and Super et al. (1963), like the sociological status attainment researchers, focused their attention on adolescence, which they considered a critical period for work identity formation (Erikson 1959). Through processes of vocational exploration in school, as well as in early jobs, the young person can "try out" various work-related tasks and consider the extent to which they are congruent with developing interests and nascent abilities. Through such successive trials, successes and failures, work values are crystallized, work identities formed, and vocational preferences established. These classic scholars assumed that vocational interests, identity, and preferences, thus formed in late childhood and adolescence, would remain relatively stable throughout the working life. Individuals who could find good "matches" between their preferences and the conditions of their actual work, would be more satisfied and committed to work, and have more stable work careers. Such youth would likely be more successful in finding intrinsically, as well as extrinsically, rewarding work, as successful vocational exploration would lead them toward more promising occupational pathways. Crystallized vocational interests and goals would provide the impetus for acquiring the educational credentials and work experiences that would equip them for their desired occupations (Zimmer-Gembeck and Mortimer 2006). Consistently, Jordaan and Super (1974) found that adolescent planfulness, responsibility, and future orientation preceded occupational attainment at age 25.

The sociologist John Clausen (1991) similarly focused on the formative period of adolescence in his research on a cohort of young people who came of age during and after the Great Depression. He noticed that some adolescents exhibited what he called "planful competence," including productivity, interest in school, ambition and dependability. "Planfully competent" children were active in exploring their interests and in finding opportunities to express them; they sought out information and new experiences relevant to their goals; and they were sensitive to the "fit" of these experiences with their developing abilities. When Clausen interviewed the same individuals in later life (Clausen 1993) and asked them to reflect on their pasts, he found that those who were more planfully competent as adolescents had more fulfilling work and successful careers in adulthood, as well as more satisfying and stable personal lives.

It should be noted that times have changed greatly since these scholars formulated what have become the classic theories of status attainment, vocational development, and competent action, which have provided basic theoretical frameworks for thinking about these phenomena ever since. The period of transition to adulthood, and the movement from school to work, have lengthened considerably in the past several decades, with prolonged education, delayed family formation, and

longer economic dependency of children on their parents (Shanahan 2000; Swartz 2009). Whereas in the 1950s the school-to-work transition was typically a one time event, shortly after high school, contemporary youth take more time to acquire career-like work, versus "survival" jobs (Huiras et al. 2000), and other markers of adulthood. They spend more time in school, combine school and employment, alternate educational and work activities, and may spend substantial periods of time doing neither (Staff and Mortimer 2007).

In recognition to these manifold changes, social and vocational psychologists increasingly recognize that career development is manifest well beyond adolescence, with continuing potential for change in occupational interests and preferences. In Vondracek's (1990) developmental contextual theory, development is "conceptualized in terms of reciprocal organism-context relations" (p. 39), emphasizing the interdependence of individual change and shifting environmental contexts through the life span. The person influences and constrains the environment, thereby affecting the very socializing experiences that influence the further course of development (see also Vondracek et al. 1986). Similarly, Savickas (1997) emphasizes career adaptability, involving planning, exploring, and decision-making as the individual constructs long-term careers. Career outcomes are continuously influenced by work-related attitudes and behavior.

According to these theoretical perspectives, individuals are active agents who influence their own developmental pathways through ongoing person-environment transactions. Vocational identities are formed in interaction with the social context, as actors seek environments that confirm their identities, or modify their identities in the face of new information and social reactions. As noted by Zimmer-Gembeck and Mortimer (2007: 257), "Theories of vocational identity development, social learning, and social cognitive models, self-determination theory, and dynamic developmental – contextual models have all been proposed as useful in the investigation of vocational identity, career exploration, career decision-making, and commitment to vocational choices (Hackett and Lent 1992; Holland 1985; Lent et al. 1994: Super 1990; see Swanson and Gore 2000 for a review; Vondracek et al. 1986; Vondracek and Skorikov 1997)."

Vocational psychologists have long recognized that individuals receive substantial payoff for developing a mature occupational identity, encompassing a clear understanding of one's values, goals, and purposes in life. Such awareness, when fully developed, can function as an "internal compass," guiding the individual toward the achievement of "psychological success" or a subjective sense of satisfaction and fulfillment in work (Hall 2002). According to Hall (2004: 9), core values can then guide career decisions: "the secret is finding your unique genius, your talents that you love to develop and use." Moreover, prior agentic orientations (i.e., self-perceptions as confident, independent, easily makes decisions, etc.) have been linked to future self-evaluations of occupational success (Abele 2003) and career satisfaction (Abele and Spurk 2009) among highly educated professional workers.

It is thus evident that both vocational psychologists and life course sociologists are converging in their focus on agentic action from adolescence through

adulthood. Elder has articulated the principle of agency as a bedrock foundation to an understanding of the life course (Elder 1994; Elder et al. 2003; Hitlin and Elder 2007a, b; see also Emirbayer and Mische 1998). According to this principle, "Individuals construct their own life course through the choices and actions they take within the opportunities and constraints of history and social circumstance" (Elder et al. 2003: 11). Instead of viewing individuals as merely the products of life experience, persons are in many respects the architects of their own lives. Agentic action involves goal formation, commitment, and behavioral "follow-through" despite the obstacles encountered along the way.

The developmental psychologists Heckhausen et al. (2010) provide a theoretical framework that can help us understand effective long-term agentic striving. Their motivational theory of life-span development argues that goal selection, engagement, and disengagement constitute recurring goal-oriented action cycles. The critical regulatory challenge is to select goals that are consistent with age-graded opportunities and to mobilize resources (of time, effort, and skills) in their pursuit. In the years following high school, most youth have not yet acquired dependents and they have normative approval for continued financial dependence on their parents, especially when they are pursuing higher education. As a result, educational opportunities are maximized at this stage of life. High educational aspirations would motivate the pursuit of post-secondary education and persistence in the face of obstacles. Maintaining high aspirations would help youth finish their degrees, which would, in turn, increase their odds of obtaining fulfilling work.

However, maintaining unrealistically high aspirations could yield more problematic school-to-work transitions, especially if high ambitions lead to prolonged education without obtaining a college degree. According to Heckhausen et al. (2010), when confronted with "developmental deadlines", when opportunities for goal achievement diminish, the best strategy is to disengage from prior goals and formulate new ones that are more attainable. In the absence of timely success, motivational resources could be squandered by continued striving. Scaling down educational aspirations from 4-year college degrees to intermediate educational credentials, like Associates' degrees or vocational/technical certification, could lessen the likelihood of floundering in the educational system, with little return with respect to educational credentials, and increase the likelihood of finding fulfilling work.

Occupational goals may be as important as educational goals in ensuring successful school-to-work transitions. The crystallization of vocational goals, along with a sense of certainty that one can obtain them, could motivate continued striving in the face of obstacles. If the youth gives little thought to vocational objectives, educational pursuits may seem aimless and unworthy of strong resource commitment. Young people who lack crystallized career goals may be especially likely to flounder in the school-to-work transition (Staff et al. 2010). Without crystallization of career objectives, future jobs may be more like fantasies than realistic objectives that warrant deliberate planning and effort.

Finally, young people may exercise agency by positioning themselves favorably in the labor market. They may engage in active job searches, drawing on multiple

sources of information, including relatives, friends, and neighbors, employers and co-workers, as well as by approaching employers, responding to ads in newspapers and the internet, and the use of other direct methods (Granovetter 1995). Some have greater access to institutional sources of information, such as college placement offices; others may rely more on informal sources, turning to their family members and friends. As youth acquire more work experience and increase their social capital, they may draw on present and former co-workers, customers, and clients for information. Energetic and active job search signifies behavioral commitment to securing work; the more diverse sources of information, the more likely it is that young people will acquire knowledge about the labor market and about jobs that match their goals.

At the same time that the bridge from adolescence to adulthood has become longer, manifold societal changes have made it more difficult for young people to envision their futures, formulate goals, and engage in thoughtful, purposive action to realize them. In fact, some contemporary commentators argue that the nexus between prior orientations and subsequent outcomes has severed (Buchman 1989; see Johnson and Mortimer 2011, for a review). Rapid social, technological, and economic change, accompanied by increasing risks of all kinds in contemporary societies (Beck 1992), mitigate against predictability. Jobs in demand at one time soon after become automated out of existence or shipped to other countries. Global competition, the information technology revolution, organizational mergers and downsizing, economic turbulence, and the end of life-long careers (Heinz 2003) may make it seem futile to engage in the kind of vocational exploration adolescents engaged in a half century ago. The absence of clear pathways from school to work exacerbates the deleterious effects of these societal changes on successful youth transitions. Unlike countries like Switzerland, Austria, and Germany, with "dual" systems that integrate apprenticeships with vocationally-relevant educational programs, youth in the United States lack clearly-defined institutional bridges from school to work (Mortimer and Kruger 2000; Kerckhoff 2003). They must traverse this transition with little societal support, drawing on their own, and their families' resources.

In this paper we ask, to what extent do trajectories of agentic achievement-related attitudes and behaviors, formulated and activated during the period after high school, matter for the capacity to acquire both extrinsically and intrinsically rewarding jobs in the contemporary United States. We first summarize a multilevel latent class analysis that identified three pathways of agentic action (Vuolo et al. 2012) and showed how these pathways influenced the capacity of young people to weather difficult economic times. We then examine the effects of these pathways on intrinsic rewards, self-direction, and status-related outcomes of employment among respondents in their early 30s. We also investigate whether the effects of agentic trajectories on these outcomes are mediated by educational attainments, or whether they have direct effects on work outcomes when educational qualifications are controlled. The maintenance of high aspirations in the face of obstacles, strong crystallization of career goals, and energetic job search following high school may be especially determinative of the capacity to acquire fulfilling work at the beginning of the twenty-first century.

6.3 Data and Methods

6.3.1 Data Source

The ongoing Youth Development Study is a prospective longitudinal study of 1,010 individuals randomly drawn in 1988 from of all ninth graders enrolled in the St. Paul Public School District in Minnesota. From 1989 to 2005, respondents completed up to 15 follow-up surveys tapping educational and occupational plans and attainments, behavioral and psychosocial adjustment, relationship formation, civic engagement, and experiences in work, school, and family. By 2005 (the 16th wave of data collection), when most respondents were 31 and 32 years old, 71 % of the initial participants had been retained.

The Youth Development Study has contributed much to our understanding of contemporary vocational development and transition to adulthood (for an overview of study findings, see Mortimer 2012). Published work based on this large data archive initially examined the precursors of work experience during the teenage years (Mortimer 2003), and its consequences for mental health, the sense of efficacy, and the development of intrinsic and extrinsic work values. Findings showed clear impacts of the duration and intensity of early jobs, as well as their quality, on these psychological variables. Drawing on data from the respondents after they left high school, other research examined the impacts of teenage work experiences on adult educational attainment and for achieving a self-identified "career" (Staff and Mortimer 2007; Mortimer et al. 2008; Vuolo et al. 2014). YDS investigators have considered processes of coming to terms with educational underachievement (Uno et al. 2010) and social class variation in the character of transition to adulthood (Mortimer 2008). Recent work on the Youth Development Study has examined the origins and adult occupational outcomes of intrinsic and extrinsic occupational values (Johnson and Mortimer 2011); the sources of the motherhood wage penalty (Staff and Mortimer 2012), and the dissonance between intrinsic work values and rewards as sources of work satisfaction (Porfeli and Mortimer 2010). As described more fully below, we have also assessed the consequences of agentic pathways for wage rates and unemployment during the "Great Recession" (Vuolo et al. 2012). The present chapter presents our first attempt to assess the relationships between agentic pathways of transition to adulthood and the intrinsic and status-related dimensions of adult work.

6.3.2 Variables

6.3.2.1 Adult Work

We examine four vertical and quality of work dimensions in 2005: occupational education, occupational earnings, intrinsic work rewards, and self-direction at work. Occupational education measures the percentage of occupational incumbents

who have completed at least 1 year of post-secondary education, and occupational income assesses the percentage of workers in a given occupation who earn more than $14.30 per hour (based upon occupational categories from the U.S. Census, see Frederick 2010; Warren et al. 2002). These proportions were transformed into started logits. It should be noted that these two indicators of the vertical dimension of work reflect the socioeconomic status of the individual's occupation, not the respondent's own education or income.

The measure of intrinsic rewards is based upon seven items, including the frequency of finding a job interesting enough to do more work than the job requires, the frequency of feeling bored at work or that time is dragging (reverse coded), the frequency of feeling the work is meaningful and important, and the frequency with which respondents had to think of new ways of doing things or solving problems on their jobs (ranging on five-point scales from "never" to "always"), as well as whether respondents felt their job provides a chance to learn a lot of new things, a chance to be helpful to others, and that it uses one's skills and abilities (ranging on five-point scales from "never" to "almost always"). Standardized items were averaged. Self-direction in work is based upon two items: ratings of how much control respondents felt they had over the way they spend their time at work, as well as how much freedom they had to make important decisions about their work (ranging on five-point scales from "almost none at all" to "complete control/freedom"). Descriptive statistics are shown in Table 6.1 (for further information about variable construction, see Johnson and Mortimer 2011). Though not shown, the bivariate correlations of these work dimensions ranged from .15 (for occupational earnings and self-direction) to .62 (for occupational education and occupational earnings).

6.3.2.2 Agentic Orientations and Behavior

Three variables measured near annually from ages 18 to 31 reflect individual goals and agentic striving: educational aspirations, career goal certainty, and job search behavior. Each variable was represented by a small number of qualitatively different states. Four response options followed a question about educational aspirations ("What is the highest level of education that you plan to obtain in the future?"): high school or less, some college, an Associates or Vocational/Technical degree, or a Bachelor's degree or higher. After asking about their long-term career goal, respondents were asked how certain they were that they would achieve that goal; the responses were: I have already achieved it, very certain, somewhat certain, and not very certain. Finally, we measured the job search methods that led respondents to their current jobs – informal (through spouse/partner, parents, friends, neighbors), formal (education and work connections), and direct (responding to ads in newspapers or the internet, going directly to a firm and making inquiries, participation in a job fair, etc.). A fourth category, "not searching," was established for respondents who were no longer in the job market.

Table 6.1 Descriptive statistics

Variable	Mean (St. dev.)
US native	5.8 %
White	79.7 %
Male	42.3 %
Two-parent family	71.8 %
Parental income	6.03 (2.31)
Parents' highest SEI score	30.65 (21.60)
Parent unemployed	10.6 %
Parents' education: High school or less	38.9 %
Parents' education: Some college	31.6 %
Parents' education: Bachelor's or higher	29.5 %
Occupational education HS aspirations	−0.69 (0.38)
Occupational earnings HS aspirations	−2.45 (0.37)
Positive self-esteem	13.52 (2.38)
Economic self-efficacy	12.06 (2.25)
Academic self-esteem	9.99 (1.81)
GPA	6.69 (2.39)
Extrinsic work values	22.55 (3.36)
Volunteer work in years	0.47 (0.81)
HS work: High intensity	25.3 %
HS work: Occasional	24.3 %
HS work: Not working	6.1 %
HS work: Sporadic	17.0 %
HS work: Steady	27.3 %
Agentic latent life pathways (1992–2005): High agency	48.0 %
Agentic latent life pathways (1992–2005): Flexible agency	31.3 %
Agentic latent life pathways (1992–2005): Low agency	20.7 %
Educational attainment (2005): High school or lower	20.4 %
Educational attainment (2005): Associate's/Votech	22.8 %
Educational attainment (2005): Some college	22.4 %
Educational attainment (2005): Bachelor's or higher	34.4 %
Occupational education (2005)	0.93 (1.46)
Occupational earnings (2005)	0.18 (1.01)
Intrinsic work rewards (2005)	−0.01 (0.69)
Self-direction at work (2005)	3.55 (0.93)

6.3.2.3 Educational Attainment

To understand whether agentic striving predicts occupational status and work quality independently from educational qualifications, we include four dummy variables indicating highest degree completion by 2005: (1) high school or lower; (2) Associates or Vocational/technical degree; (3) some college, or (4) Bachelors degree or higher.

6.3.2.4 Background Variables

Though our focus is on how agentic striving in the post-adolescent period influences the acquisition of extrinsically and intrinsically rewarding jobs, we also included indices of achievement orientations and behaviors during the high school years, such as the adolescent's economic self-efficacy, academic self-esteem, self-esteem, extrinsic work values, GPA, and occupational education and occupational earnings of the job aspired to in high school. Further, high school work patterns, reflecting the average hours worked and duration of employment throughout high school (i.e., from 1989 to 1991), are included, as well as volunteer activity. We also included indicators of adolescents' sociodemographic background, such as U.S. nativity (1 = yes), race (1 = white, 0 = non-white), gender (1 = male, 0 = female), and two-parent family (1 = yes). Socioeconomic background was assessed using measures of parent(s)' occupational status (SEI), unemployment, income, and educational attainment (derived from parent(s) reports during the first wave of the study, 1988). For further information, including the construction of indices, see Mortimer et al. 2008; and Staff and Mortimer 2007.

6.4 Results

6.4.1 Agentic Pathways

While presented in Vuolo et al. (2012), we briefly summarize the method we used to create the agentic pathways (for methodological and analytic details, see Macmillan and Eliason 2003; Vermunt and Magidson 2005; Vermunt 2003). In this nonparametric multilevel latent class analysis, the first level represents how our three observed indicators of agency cluster at each age point. The second level then forms another latent class, referred to as latent life paths, that summarizes how the observed indicators of agency move together over time.

The three dimensions of agentic striving of interest in this study (i.e., educational aspirations, career goal certainty, and job search behavior), while often studied singly, are clearly intertwined. Commensurate educational aspirations would seemingly make career goals more certain; and strong career objectives would promote motivation to achieve the educational credentials that would allow their realization. The capacity to mobilize one's energy and resources to obtain information about jobs from diverse sources would likely promote confidence about achieving one's career objectives as well as undergird high educational aspirations. In fact, Vuolo et al. (2012) found multiple configurations of these variables (eight to be exact) with different probabilities over time, as youth moved from school to work. For example, a popular early configuration involved high aspirations and career certainty and no job search, as many respondents still attended school. Configurations involving direct job search predominated over those using more diverse methods before

respondents gained work-related contacts that would enable them to use the more formal methods. During the transition from school to work, our respondents moved through such configurations in ways that represent three agentic pathways of transition to adulthood.

Figure 6.1 shows the three latent paths that emerged from the best fitting model. The first pathway, including approximately 48 % of respondents, indicates high agency. The pathway is marked by continually high educational aspirations and certainty of achieving one's career or already having achieved it. Job search behavior through several techniques occurs right at the end of the college years and gives way to not searching in later adulthood. Approximately 31 % of respondents in our sample followed the second pathway characterized by "flexible agency." In this pathway, Bachelor's educational aspirations are the norm early, but there is a propensity for aspirations to be later adjusted to an Associate's/Votech degree. While job search behavior is similar between these first two pathways, career goal certainty in the flexible agency pathway is more moderate. The final pathway, encompassing approximately 21 % of respondents, suggests low agency. This pathway starts with low educational aspirations and career goal uncertainty, which both decrease further over time. Unlike the other two pathways, job search behavior never gives way to not searching. There is an additional life path that contains those missing on each measure, or those that attrited early from the study, which is treated as missing and not discussed further.

Not surprisingly, there is considerable overlap between the agentic pathways and educational attainment. Table 6.2 shows the crosstabulation. For those in the high agency pathway, the majority achieved a Bachelor's degree (67.1 %) and less than 1 % earned only a high school degree or less by 2005. But some who have not completed college and some who have attained an Associates or Votech degree are still in this highly agentic pathway marked by high educational aspirations and career goal certainty. Among respondents in the flexible and low agency pathways, there is much heterogeneity in educational attainment, although having a Bachelor's degree is rare in both pathways (less than 1 %). Almost half of respondents in the pathway of low agency had earned a high school education or less by 2005, while the modal educational category for the flexible agency pathway is an Associate's or Vocational/technical degree. Interestingly, respondents who attended but did not complete college are evenly represented among the three agentic pathways.

6.4.2 Agentic Pathways and Weathering Economic Storms

In recent research, Vuolo and colleagues (2012) showed that the three agentic pathways were differentially successful in "weathering" the current Great Recession (see Tables 6.5 and 6.6 in Vuolo et al. 2012). As might be expected, the most agentic group had the highest wage rates in 2009, suffered the fewest months of unemployment between 2007 and 2009, and were least likely to be unemployed in 2009. The least agentic had the poorest outcomes. What may be surprising,

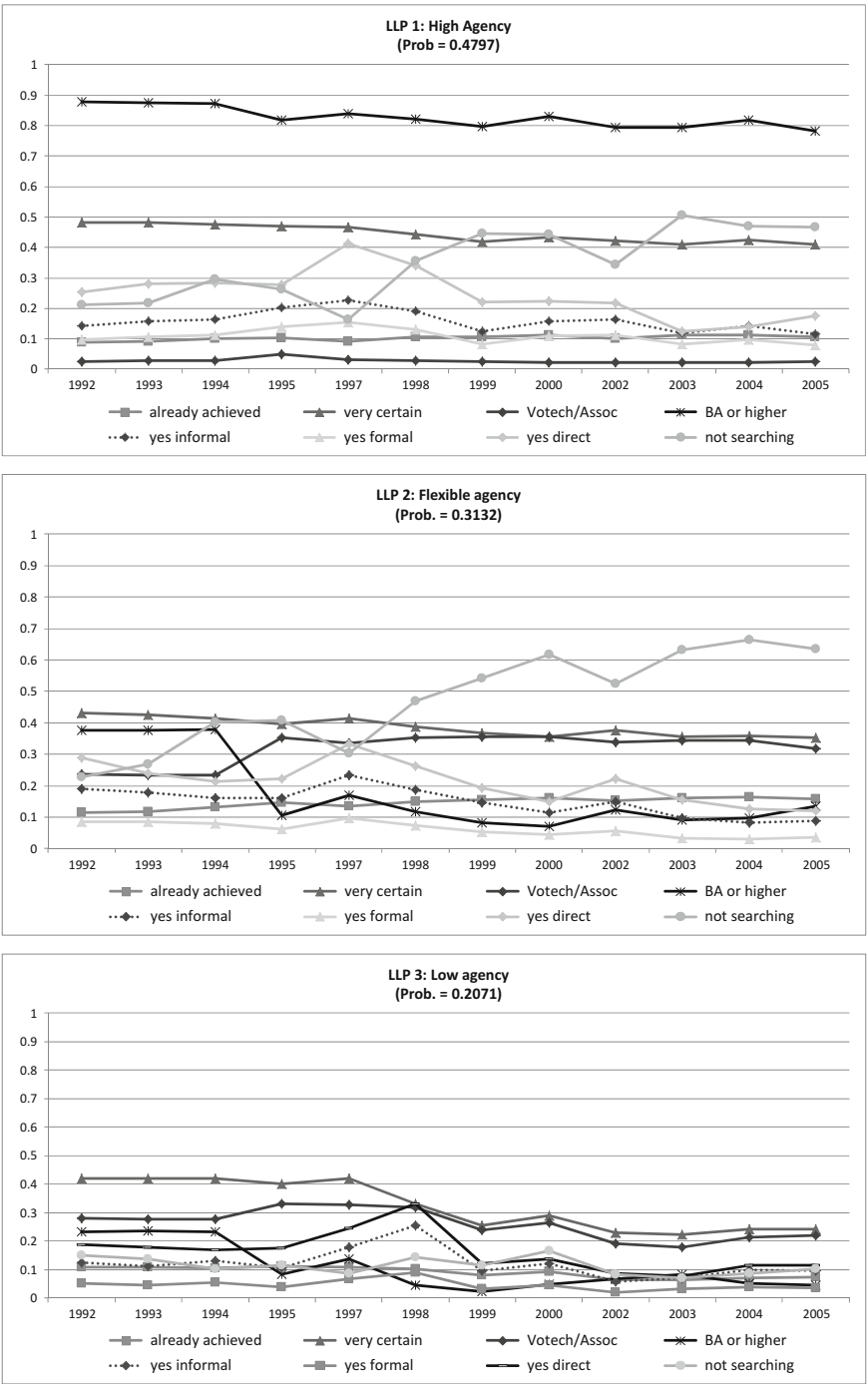

Fig. 6.1 Latent life pathways of agentic striving, 1992–2005 (Adapted from Vuolo et al. 2012)

Table 6.2 Crosstabulation of agentic pathways (1992–2005) and educational attainment (2005)

	Educational attainment			
Agentic pathways	High school or less (%)	Assoc./Votech (%)	Some college (%)	Bachelor's (%)
High agency	0.9	8.9	23.1	67.1
Flexible agency	36.0	40.1	23.0	0.9
Low agency	49.5	29.3	19.2	0.9

Note: Values represent row percentages, or the percentage of agentic pathway members with a particular educational attainment

however, is that the group exhibiting flexible adjustment of educational goals, while maintaining fairly high levels of career goal certainty, were not significantly different from the most agentic in their 2009 unemployment rates and wage rates. Youth following this agentic pathway, however, suffered significantly longer spells of unemployment than the most agentic youth if they were out of work between 2007 and 2009. It is important to note that these findings held even when indicators of adolescents' social class origins, achievement orientations and behaviors in high school (economic self-efficacy and academic self-esteem), and adult educational attainments were controlled. The robust character of the findings attests to the importance of agentic orientations and behaviors *after* high school for the capacity to weather economic storms. It also demonstrates that personal resiliency, measured well beyond high school, matters net of educational credentials.

6.4.3 Agentic Pathways and the Acquisition of Fulfilling Adult Work

Extending Vuolo et al.'s (2012) analysis, we estimated a series of nested OLS regression models for four adult work outcomes, first including sociodemographic background (Model 1), and then adding achievement-related measures from adolescence (Model 2), the post-adolescent agentic striving pathways (Model 3), and adult educational attainment (Model 4).[1] Though work roles have become less differentiated by gender in recent years, the continuing differences between men

[1] While estimation of latent agentic paths includes all 1,010 respondents due to the model's ability to handle missing data directly in the estimation procedure, analyses of occupational outcomes are limited to 518 cases reporting employment and occupational characteristics in the 2005 survey (no imputation of 2005 missing data was conducted). Despite this discrepancy, we believe this strategy is justified because each pathway assignment depends on the similarity between each respondent's own data across time and the empirical patterns represented by the pathways. In supplemental analysis not shown but available from the authors upon request, we used inverse proportional weighting (Scharfstein et al. 1999) to assess whether our findings are influenced by patterns of missing data due to panel attrition. All inferential conclusions presented in Tables 6.3, 6.4, 6.5, and 6.6 remained the same.

and women in vocational orientations and expectations could engender gender differences in the effects of agentic striving. Therefore, in exploratory fashion, we tested the interaction between gender and the agentic pathways in affecting each outcome (Model 5). This interaction was only statistically significant in predicting occupational education.

Table 6.3 shows results (unstandardized beta coefficients) from a series of OLS regression models predicting adult occupational education.[2] Though all control variables are included in the estimation of the models, to simplify the tables only the key background factors and agentic pathways are included.[3] As shown in Model 1, parent(s)' education is positively related to occupational education in adulthood. Males have lower occupational education than females, but this gender difference is mediated by the inclusion of achievement orientations and behaviors during high school (Model 2). Not surprisingly, higher scores on academic self-esteem, GPA, and occupational aspirations in adolescence are associated with higher status jobs in adulthood. Importantly, these effects are rendered statistically non-significant by the inclusion of the agentic pathways (Model 3), with the exception of GPA. Adolescents' high ambitions are likely to be expressed in agentic action, but net of the pathways they have no significant impact on this dimension of occupational success. Compared to respondents who showed the highest agency during the school-to-work transition, respondents who showed flexible or low agency during this period were more likely to work in jobs with low occupational education in adulthood, with the latter close to a full standard deviation lower (s.d. = 1.46). These differences in adult occupational status are maintained even after including educational attainment (Model 4), although the magnitude of the differences is reduced. In Model 5, we show a significant interaction between the agentic pathways and gender. The results indicate that high agency is equally advantageous to finding a high status job for women and men. However, women whose agency is more flexible are not significantly different from their high agency counterparts, while men whose agency shows a propensity for flexible shift are worse off than similar men who maintain high agency. Similarly, although both women and men in the low agency pathway are at a disadvantage with respect to finding a job with high occupational education, men are disadvantaged to a greater degree. These exploratory results suggest that it is especially advantageous for men to manifest the highest level of agency in transition from school to work.

Turning now to occupational earnings (Table 6.4), parent(s)' education is again positively related to higher status work in adulthood. Gender is also related to

[2] According to the tolerance and variance inflation factor (VIF) collinearity statistics, mutlicollinearity does not appear problematic. For each coefficient across all the models presented, the lowest tolerance was .345 and the highest VIF was 2.899. These values are far from the typical problematic cutoffs of less than .10 for the tolerance and greater than 10 for the VIF.

[3] In unlisted models, we included measures from adolescence capturing depressive affect, self-efficacy, intrinsic motivation to school, intrinsic work rewards, school problem behavior, time spent in extracurricular activities, and age. None of these measures were statistically significant in predicting the adult work outcomes and thus were not included in the final models.

Table 6.3 OLS regression of occupational education (2005)

	Model 1	Model 2	Model 3	Model 4	Model 5
	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)
(Constant)	1.129**	−1.494	.215	1.004	.815
	(.424)	(.893)	(.881)	(.887)	(.883)
White	.202	.085	.201	.170	.189
	(.186)	(.181)	(.174)	(.171)	(.170)
Male	−.303*	−.011	−.118	−.145	.122
	(.133)	(.178)	(.170)	(.167)	(.192)
Parents' education: some college vs. HS	.413*	.262	.017	.068	.086
	(.165)	(.158)	(.154)	(.152)	(.151)
Parents' education: Bachelor's vs. HS	1.166***	.773***	.371*	.319*	.348
	(.184)	(.184)	(.183)	(.181)	(.180)
Occupational education HS aspirations		.526*	.386	.395	.352
		(.249)	(.237)	(.232)	(.231)
Occupational earnings HS aspirations		−.364	−.306	−.254	−.243
		(.252)	(.240)	(.235)	(.234)
Positive self-esteem		−.050	−.027	−.026	−.027
		(.028)	(.027)	(.026)	(.026)
Academic self-esteem		.115**	.049	.048	.052
		(.042)	(.041)	(.040)	(.040)
GPA		.134***	.101**	.075*	.070*
		(.034)	(.033)	(.033)	(.033)
Extrinsic work values		.025	.015	.014	.015
		(.019)	(.018)	(.018)	(.018)
Volunteer work		.001	−.022	−.004	−.004
		(.075)	(.071)	(.070)	(.070)
HS work: occasional vs. high intensity		−.192	−.215	−.218	−.243
		(.182)	(.174)	(.171)	(.171)
HS work: not working vs. high intensity		.015	.091	.090	.124
		(.349)	(.331)	(.327)	(.326)
HS work: sporadic vs. high intensity		−.237	−.191	−.155	−.158
		(.206)	(.196)	(.194)	(.192)
HS work: steady vs. high intensity		.153	.088	.068	.042
		(.169)	(.161)	(.159)	(.159)
Agentic pathways (1992–2005): Flexible vs. High agency			−.986***	−.579**	−.320
			(.154)	(.197)	(.219)
Agentic pathways (1992–2005): Low vs. High agency			−1.254***	−.923***	−.757*
			(.239)	(.264)	(.299)
Educational attainment (2005): HS vs. Bachelor's				−.886***	−.837***
				(.256)	(.255)
Educational attainment (2005): Assoc./Votech vs. Bachelor's				−.508*	−.496*
				(.218)	(.217)

(continued)

Table 6.3 (continued)

	Model 1	Model 2	Model 3	Model 4	Model 5
	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)
Educational attainment (2005): Some college vs. Bachelor's				−.769*** (.187)	−.775*** (.186)
Male * Changing aspirations					−.663** (.247)
Male * Low aspirations					−.520 (.463)
N	518	518	518	518	518
Adjusted R^2	.122	.230	.308	.335	.343
F-statistic, df	7.87***, 9	7.32***, 21	9.60***, 23	9.59***, 26	9.30***, 28

Note: Several variables are included in the models but not shown in the tables due to non-significance. For all models, US nativity, two-parent family, parental income, parents' highest SEI, and parents' unemployment are not shown. For Models 2–5, economic self-efficacy is not shown

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

occupational earnings, though men are in this case more likely to work in jobs with higher earnings than women (Model 1). In Model 2, higher GPA and extrinsic work values are each associated with higher occupational earnings, while there is a negative effect for volunteering. Occasional work in adolescence, defined by working few hours across few months during high school, is also negatively related to adult occupational earnings; adolescent occasional workers are lower on occupational earnings than high intensity workers who worked intensive hours across many months. Similar to the analyses predicting occupational education, both flexible and low agency pathways yield significantly lower occupational earnings than the high agency pathway (Model 3), and these differences are robust to the inclusion of educational attainment (Model 4). Only the difference in occupational earnings between those who obtained some college and those who attained Bachelor's degrees, however, is statistically significant; those who attain some college education have lower occupational earnings. Those with flexible agency are one-third of a standard deviation lower (s.d. = 1.01) on occupational earnings compared to those with high agency, while those with low agency are approximately two-thirds of a standard deviation lower.

Next, we move on to two important indicators of work quality: intrinsic work rewards (Table 6.5) and self-direction at work (Table 6.6). As shown in Models 1 and 2 of Table 6.5, whites show higher intrinsic rewards than non-whites, though no background variables or high school orientations are statistically significant predictors of intrinsic rewards in adulthood. In Model 3, we again see that both the flexible and low agency pathways are significantly lower in work quality than the high agency group, at nearly one-third and one-half of a standard deviation (s.d. = 0.69), respectively. Yet, when educational attainment is added (Model 4), these differences in the pathways are reduced substantially and become statistically

Table 6.4 OLS regression of occupational earnings (2005)

	Model 1	Model 2	Model 3	Model 4
	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)
(Constant)	−.004	−2.288***	−1.341*	−1.020
	(.297)	(.637)	(.643)	(.656)
White	.248	.247	.301*	.287*
	(.131)	(.129)	(.127)	(.126)
Male	.390***	.563***	.498***	.484***
	(.093)	(.127)	(.124)	(.123)
Parents' education: some college vs. HS	.248*	.188	.059	.092
	(.115)	(.113)	(.112)	(.113)
Parents' education: Bachelor's vs. HS	.429***	.291*	.078	.056
	(.129)	(.131)	(.134)	(.134)
Occupational education HS aspirations		.340	.261	.268
		(.178)	(.173)	(.172)
Occupational earnings HS aspirations		−.268	−.228	−.207
		(.180)	(.175)	(.174)
Positive self-esteem		−.018	−.006	−.006
		(.020)	(.019)	(.019)
Academic self-esteem		.052	.018	.019
		(.030)	(.030)	(.030)
GPA		.084***	.065**	.054*
		(.024)	(.024)	(.025)
Extrinsic work values		.038**	.033*	.033*
		(.014)	(.013)	(.013)
Volunteer work		−.115*	−.125*	−.118*
		(.053)	(.052)	(.052)
HS work: occasional vs. high intensity		−.271*	−.276*	−.267*
		(.130)	(.127)	(.126)
HS work: not working vs. high intensity		−.355	−.306	−.305
		(.249)	(.242)	(.242)
HS work: sporadic vs. high intensity		−.089	−.063	−.040
		(.147)	(.143)	(.143)
HS work: steady vs. high intensity		−.108	−.141	−.141
		(.121)	(.117)	(.117)
Agentic pathways (1992–2005): Flexible vs. High agency			−.507***	−.371*
			(.113)	(.146)
Agentic pathways (1992–2005): Low vs. High agency			−.764***	−.670***
			(.175)	(.195)
Educational attainment (2005): HS vs. Bachelor's				−.328
				(.190)
Educational attainment (2005): Assoc./ Votech vs. Bachelor's				−.134
				(.161)
Educational attainment (2005): Some college vs. Bachelor's				−.376**
				(.138)
N	518	518	518	518

(continued)

Table 6.4 (continued)

	Model 1	Model 2	Model 3	Model 4
	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)
Adjusted R^2	.060	.144	.195	.206
F-statistic, df	4.15***, 9	4.57***, 21	5.66***, 23	5.44***, 26

Note: Several variables are included in the models but not shown in the tables due to non-significance. For all models, US nativity, two-parent family, parental income, parents' highest SEI, and parents' unemployment are not shown. For Models 2–4, economic self-efficacy is not shown

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

Table 6.5 OLS regression of intrinsic work rewards (2005)

	Model 1	Model 2	Model 3	Model 4
	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)
(Constant)	−.156	−1.294**	−.920	−.559
	(.211)	(.478)	(.494)	(.505)
White	.147	.184	.205*	.195*
	(.095)	(.098)	(.098)	(.098)
Male	.043	.143	.117	.103
	(.067)	(.096)	(.096)	(.095)
Parents' education: some college vs. HS	.088	.066	.017	.043
	(.083)	(.085)	(.087)	(.087)
Parents' education: Bachelor's vs. HS	.088	.057	−.030	−.050
	(.093)	(.099)	(.104)	(.103)
Occupational education HS aspirations		.254	.221	.225
		(.133)	(.133)	(.131)
Occupational earnings HS aspirations		−.208	−.189	−.166
		(.135)	(.134)	(.133)
Positive self-esteem		.016	.020	.020
		(.015)	(.015)	(.015)
Academic self-esteem		−.010	−.024	−.025
		(.023)	(.023)	(.023)
GPA		.008	.001	−.010
		(.018)	(.018)	(.019)
Extrinsic work values		.010	.009	.008
		(.010)	(.010)	(.010)
Volunteer work		−.006	−.010	−.003
		(.040)	(.040)	(.040)
HS work: occasional vs. high intensity		−.107	−.109	−.108
		(.099)	(.098)	(.098)
HS work: not working vs. high intensity		−.004	.006	−.007
		(.180)	(.179)	(.179)

(continued)

Table 6.5 (continued)

	Model 1	Model 2	Model 3	Model 4
	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)
HS work: sporadic vs. high intensity		.039	.052	.064
		(.111)	(.110)	(.110)
HS work: steady vs. high intensity		.007	−.006	−.016
		(.092)	(.091)	(.091)
Agentic pathways (1992–2005): Flexible vs. High agency			−.202*	−.041
			(.087)	(.112)
Agentic pathways (1992–2005): Low vs. High agency			−.304*	−.177
			(.136)	(.151)
Educational attainment (2005): HS vs. Bachelor's				−.349*
				(.145)
Educational attainment (2005): Assoc./ Votech vs. Bachelor's				−.204
				(.125)
Educational attainment (2005): Some college vs. Bachelor's				−.329**
				(.107)
N	518	518	518	518
Adjusted R^2	.001	.004	.016	.034
F-statistic, df	.67, 9	1.08, 21	1.33, 23	1.61*, 26

Note: Several variables are included in the models but not shown in the tables due to non-significance. For all models, US nativity, two-parent family, parental income, parents' highest SEI, and parents' unemployment are not shown. For Models 2–4, economic self-efficacy is not shown

*p < .05, **p < .01

non-significant. Those with a high school education or some college are significantly lower on intrinsic work rewards than those with a Bachelor's degree, though there is little difference in adult intrinsic rewards for those with a Bachelor's degree and those with an Associate's or Votech degree.

For self-direction at work, shown in Table 6.6, there is also a significant effect of race, as whites are higher on self-direction at work than non-whites (Model 1). When we included the high school measures (Model 2), self-esteem and occupational aspirations are both positively related to adult self-direction at work. Thus, youth with higher self-esteem and who aspire towards a job with higher occupational earnings are more likely to find jobs with high self-direction as adults. For the agentic pathways (Model 3), those with low agency are significantly lower on self-direction by about one-third of a standard deviation compared to those with high agency (s.d. = 0.93), while those with flexible agency show similar self-direction at work as those with high agency. Like intrinsic rewards, however, these differences are mediated by the inclusion of educational attainment (Model 4). Here, we see those with an Associate's or Votech degree have lower self-direction at work than those with a Bachelor's degree.

Table 6.6 OLS regression of self-direction at work (2005)

	Model 1	Model 2	Model 3	Model 4
	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)
(Constant)	3.299***	3.049***	3.226***	3.485***
	(.283)	(.633)	(.656)	(.675)
White	.293*	.355**	.328*	.317*
	(.128)	(.130)	(.131)	(.131)
Male	.044	−.064	−.092	−.099
	(.090)	(.127)	(.127)	(.127)
Parents' education: some college vs. HS	.098	.081	.077	.077
	(.112)	(.113)	(.115)	(.116)
Parents' education: Bachelor's vs. HS	.023	−.025	−.034	−.059
	(.125)	(.131)	(.138)	(.138)
Occupational education HS aspirations		.072	.057	.057
		(.176)	(.176)	(.176)
Occupational earnings HS aspirations		.321	.352*	.365*
		(.178)	(.178)	(.178)
Positive self-esteem		.048*	.047*	.044*
		(.020)	(.020)	(.020)
Academic self-esteem		.016	.018	.016
		(.030)	(.031)	(.031)
GPA		.047	.039	.028
		(.024)	(.025)	(.025)
Extrinsic work values		.008	.008	.009
		(.014)	(.014)	(.014)
Volunteer work		−.095	−.091	−.084
		(.054)	(.053)	(.054)
HS work: occasional vs. high intensity		−.230	−.204	−.229
		(.131)	(.131)	(.131)
HS work: not working vs. high intensity		−.383	−.354	−.403
		(.239)	(.238)	(.239)
HS work: sporadic vs. high intensity		−.166	−.162	−.190
		(.147)	(.147)	(.147)
HS work: steady vs. high intensity		−.130	−.126	−.156
		(.122)	(.122)	(.122)
Agentic pathways (1992–2005): Flexible vs. High agency			.039	.200
			(.116)	(.150)
Agentic pathways (1992–2005): Low vs. High agency			−.374*	−.207
			(.180)	(.202)
Educational attainment (2005): HS vs. Bachelor's				−.207
				(.195)
Educational attainment (2005): Assoc./ Votech vs. Bachelor's				−.358*
				(.167)
Educational attainment (2005): Some college vs. Bachelor's				−.153
				(.143)

(continued)

Table 6.6 (continued)

	Model 1	Model 2	Model 3	Model 4
	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)	Coefficient (St. error)
N	518	518	518	518
Adjusted R^2	.001	.035	.043	.048
F-statistic, df	.96, 9	1.77*, 21	1.89**, 23	1.87**, 26

Note: Several variables are included in the models but not shown in the tables due to non-significance. For all models, US nativity, two-parent family, parental income, parents' highest SEI, and parents' unemployment are not shown. For Models 2–4, economic self-efficacy is not shown
*p < .05, **p < .01, ***p < .001

6.5 Conclusion

The capacity to assess indicators of agency in adolescence, as well as over a relatively long time span marking the transition to adulthood, and to link pathways of agentic orientations and behaviors to adult occupational outcomes, distinguishes this research from prior studies. Indeed, the agentic indicators were measured 12 times from the age of 18 to 31 (1992–2005). Whereas the influence of agency is commonly studied by linking single-year assessments of efficacy, confidence, independence, planfulness and similar attributes to subsequent educational, economic, or occupational success (e.g., Lee and Mortimer 2009; Shanahan et al. 1997), our application of multilevel latent class analysis yielded three theoretically-grounded agentic pathways. Moreover, unlike some research that finds associations between earlier spot indicators of agentic orientations and general self-evaluations of career success (e.g., Abele 2003; Abele and Spurk 2009), this study demonstrates the predictive power of agentic orientations and behaviors with respect to particular sources of adult occupational fulfillment: occupational status, intrinsic rewards, and self-direction.

The findings make it abundantly clear that agentic striving in the post-high school period matters both for contemporary youth's subsequent socioeconomic success and for the capacity to obtain high quality work experiences. In contrast, adolescent achievement-related orientations measured during high school mattered little for subsequent extrinsic or intrinsic work outcomes. Unlike those youth studied by John Clausen in the Depression era, those observed by the classic vocational psychologists in the 1940s and 1950s, and those in the high school graduating class of 1957 and subsequently followed by the Wisconsin researchers, with just a few exceptions we find little connection between adolescent achievement-relevant attitudes and preferences (vocational goals, economic efficacy, occupational values, etc.) and subsequent intrinsic and extrinsic occupational rewards.

The significant effects of achievement orientations and behaviors during high school centered on just a single outcome, what we call "occupational income," which increases as occupational incumbents have higher levels of income. Interestingly, and contrary to expectations that would be drawn by the status attainment

model, those who aspired to jobs that typically have higher levels of income were not the ones who attained them in young adulthood. Instead, those who more strongly valued the extrinsic rewards of work were found later in jobs with higher earning potential. (While Johnson and Mortimer [2011] found that more extrinsically-oriented youth had higher earnings in young adulthood, this was because they worked more hours, not because they had higher wage rates.)

It is the agentic trajectories following high school that clearly have the more consistent effects. Those who pursued the least agentic path had the most problematic outcomes. By their early-thirties, they had acquired jobs associated with relatively low levels of education and income, and they had low levels of both self-direction and intrinsic rewards. Those who exhibited the more flexible agentic pathway, with a tendency to move from high to intermediate educational goals while maintaining relatively high career certainty, had significantly lower levels of intrinsic rewards and socioeconomic attainments than the youth who had consistently high aspirations, career certainty, and active job search. The differences, however, between the flexibly agentic and those that we are calling the most agentic were consistently smaller than those between the least and most agentic youth. Moreover, those who exhibited the flexible agentic pathways were not significantly different from the most agentic in their capacity to secure self-directed work. This pattern of findings underscores the importance of agentic striving in the post-high school period for the capacity to find fulfilling work.

We also find evidence that post-adolescent agentic trajectories are important because they mediate the effects of psychological orientations during high school on occupational outcomes. Though the adolescent orientations had little predictive power net of social background, there was some indication that their effects were mediated by the agentic pathways. That is, early achievement orientations may have set in motion agentic attitude and behavioral constellations, leading to continuingly high aspirations, high levels of confidence that occupational goals will be reached, and energetic job search. Conversely, less ambitious attitudes and goals could precede the declining aspirations, certainty, and job search we see in the least agentic youth after high school. Consistent with this scenario, teenagers who had aspirations to obtain occupations requiring high levels of education, and those who indicated higher academic self-esteem during high school, were indeed able to acquire occupations with higher educational requirements. However, these effects disappeared when we added the agentic pathways to the model.

Not surprisingly, higher educational attainments lead youth toward jobs with higher educational requirements; and Bachelor's recipients outperform those with some college with respect to the acquisition of jobs with high income potential. Bachelor's recipients also enjoy greater self-direction in their jobs than those with intermediate credentials. As we have seen, the most agentic pathway tends to lead youth toward bachelor's degrees, the flexibly agentic are the most likely to acquire intermediate educational credentials such as Associates degrees and various forms of technical certification, and the least agentic are least likely to have post-secondary educational degrees. We find evidence that educational attainments mediate some, but not all, of the effects of the agentic pathways, particularly with

respect to self-direction and intrinsic rewards. The acquisition of post-secondary education helps youth to obtain the more intrinsically rewarding and self-directed jobs. The tendency for the flexibly agentic to have jobs with higher educational qualifications was mediated by their educational attainment as well. Interestingly, however, the agentic pathways continued to have significant effects on the two measures of occupational status even when educational credentials were controlled. The least agentic continued to have jobs with significantly lower educational requirements even when their own educations were controlled. Moreover, the advantage of the most agentic, in comparison to the flexibly agentic and the least agentic, with respect to "occupational earnings" likewise was not explained by educational attainment. After completing school, their continued aspirations, certainty, and multi-method job searches drew them toward jobs with greater earning potential.

More generally, the findings underscore the importance of agentic orientations following high school for adult occupational attainment. They confirm Vondracek's (1990) and Savickas' (1997) developmental contextual models of vocational development by highlighting the long-term significance of individuals' orientations and behaviors throughout the extended transition from school to work. The individual is indeed an active participant and creator in the achievement of vocational outcomes and career trajectories. The present study extends these models by specifying the complex linkages between individual orientations and behaviors, educational attainment, and indicators of both socioeconomic status and intrinsic sources of fulfillment in work. Sociological studies of the process of attainment typically consider only the effects of adolescent aspirations on socioeconomic status. Yet, as the school-to-work transition continues to both lengthen and diversify, and as adolescents become increasingly ambitious in their educational and career goals (Reynolds et al. 2006), it becomes all the more important to assess the processes by which young people strive for better jobs and more satisfying careers in young adulthood. Aiming high in adolescence is no doubt important, as classical studies of status attainment have long demonstrated, but in the current economic climate marked by high rates of unemployment and job loss, downsizing and frequent turnover, and employment conditions that are often temporary and part-time, it is also important for young people to maintain high aspirations (or at least be flexible), have strong career goal certainty, and utilize a number of job search strategies to find high status and fulfilling work.

Our findings show some gender differences in adult work status, as women are more likely than men to work in jobs with lower earning potential. This difference in occupational earnings was sizable (over one half of a standard deviation), and other research has shown gender inequality in wages during the early occupational career (Marini and Fan 1997). Interestingly, we also found that men were less likely than women to find jobs that entailed high education when their agency was more limited, though gender did not moderate the effects of agency on other work dimensions. This pattern of findings may reflect the overrepresentation of the least agentic men in jobs that require limited education but still provide relatively high earnings, such as transportation, construction, or skilled trades. Alternatively,

this finding might be due to gender differences in employment among the least agentic respondents. In unlisted analyses, we found that only 49 % of low agency women were employed in 2005 compared to 63 % of low agency men. Gender differences in employment were smaller among respondents who displayed flexible and high agency (e.g., 92 % of women and 95 % of men were employed in the high agency pathway; 87 % of women and 94 % of men in the flexible agency pathway). Thus, the least agentic men may be more likely to work in low status jobs than low agentic women because they are more likely to be employed.

In summary, we find that young people who strive hard in the years following high school have enhanced adult occupational attainment and are more likely to work in high quality jobs. Moreover, young people who show flexibility in their educational goals and yet maintain strong career certainty, also tend to find high quality work through the acquisition of intermediate degrees. This finding is particularly important for youth who attend college but do not earn a degree (i.e., "some college"), as these youth could in many cases be steered toward more promising intermediate educational pathways and career outcomes. Educators, counselors, and parents should encourage youth to engage in vocational exploration to better equip them for an uncertain and possibly turbulent transition from school to work. They should also tell them that work worth doing is found not only by aiming high and being successful in school, but also by knowing what job you want to do, and trying a number of different ways to get it, in the years after they leave high school.

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Chapter 7
The How and Why of the Relationship Between Job Insecurity, Subjective Career Success, and Turnover Intention

Cécile Tschopp and Gudela Grote

7.1 Introduction

As a result of the steadily increasing practice of outsourcing in private and public sectors, as well as the current rate of downsizing, mergers, and layoffs (cf. Hirsch and De Soucey 2006), feelings of insecurity and uncertainty concerning the nature and existence of employment have intensified (Kalleberg 2009; Smith 2010; Sverke and Hellgren 2002). In this context, job insecurity is defined as personal concern as to whether a job will continue (Klein Hesselink and van Vuuren 1999). Individually perceived job insecurity increases when both the perceived probability and the perceived seriousness of losing one's job grow (Dekker and Schaufeli 1995).

Job insecurity has become an intensively investigated issue in work and organizational psychology over the last 20 years due to its increased prevalence in the workforce. The research has revealed the widespread and unwanted effects of job insecurity on job attitudes (Berntson et al. 2010; Cheng and Chan 2008), work behaviors (Cheng and Chan 2008), work performance (Cheng and Chan 2008; Chirumbolo and Areni 2010; König et al. 2010), and employees' health and well-being (Cheng and Chan 2008; Chirumbolo and Areni 2010; Kinnunen et al. 2010; Vander Elst et al. 2010). In brief, the negative effects of job insecurity on both individuals and organizations are well established.

From the individual's perspective in particular, job insecurity is considered a critical stressor in contemporary work life (De Cuyper et al. 2008) because it is not only the actual job loss, but also the anticipation of such a stressful event, that represents a source of anxiety (Dekker and Schaufeli 1995). Like any other stressor, job insecurity will result in strain as well as decreased well-being and will be followed by any kind of coping strategies in order to alleviate stress (Lazarus and Folkman 1984). Indeed, a considerable amount of research has confirmed that

C. Tschopp (✉) • G. Grote
Department of Management, Technology, and Economics, ETH Zürich,
Weinbergstrasse 56/58, CH-8092 Zürich, Switzerland
e-mail: ctschopp@ethz.ch; ggrote@ethz.ch

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turnover intention, defined here as an employee's intention to quit (Chen et al. 2011) is commonly used as a coping strategy, that is people with high job insecurity demonstrated high turnover intention (Berntson et al. 2010; Chirumbolo and Hellgren 2003; Dekker and Schaufeli 1995; Staufenbiel and König 2010). While most research has been based on cross-sectional data (Mauno et al. 2005; Näswall et al. 2005; Sora et al. 2010) or has focused on the long-term effects of job insecurity (De Cuyper et al. 2009; Hellgren et al. 1999; Klehe et al. 2011), there is a lack of knowledge about the extent to which the increase or decrease in levels of job insecurity over time correspond to changes in an employee's turnover intention. Changes in employees' experienced uncertainty include relevant information about an increase or decrease in their experienced stress level. A more detailed examination of the relationship between changes in job insecurity and the corresponding changes in turnover intention over time is likely to provide a better understanding of the impact of job insecurity and, therefore, to have strong theoretical and practical implications.

Besides this direct effect of job insecurity on turnover intention as a coping mechanism, we also expect to find an indirect effect through subjective career success. Indeed, job insecurity also has negative influences on job attitudes like job satisfaction and organizational commitment (cf. Sverke et al. 2002 for a review). Whereas the relationship between job insecurity and general job satisfaction has been closely examined and verified, the more specific issue of subjective career success has rarely been taken into account in this context (Otto et al. 2011). We define subjective career success as an individual's appraisal of their unfolding career progress (Heslin 2005). Thus, the subjective sense of career success is a function of how satisfied a person is with respect to the kind of career he/she aspires. In an era where responsibility for one's own career has shifted more and more from the organization to the employee (Briscoe and Hall 2006; Hall 1996), the satisfaction with one's own career trajectory gains in importance (cf. Hall 1996, 2004).

Similarly, Direnzo and Greenhaus (2011) highlight in their model of job search and voluntary turnover the importance of taking responsibility for one's career. They propose that individuals are keen to increase their career competencies in order to achieve a satisfactory career trajectory. However, it is through feelings of job insecurity that successful career development within the current organization might be impaired. When a successful career path is at risk, employees might start looking for alternatives, and as a result turnover intention may increase (Chen et al. 2011). Although theoretical assumptions and models are published, empirical verification supporting the indirect effect of job insecurity on employee turnover intention through subjective career success is still lacking.

Hence, the aim of the present study is to analyze firstly the direct effect of job insecurity on turnover intention and secondly its indirect effect through subjective career success, taking into account change over time. That is, each relationship between the three constructs—job insecurity, subjective career satisfaction and turnover intention—is examined in order to identify the links between initial levels (statistically spoken: between intercepts) and the mutual trajectories of change over time (statistically spoken: between slopes). A link between initial levels describes the relationship between the initial levels of two variables. A mutual trajectory of

change describes the relationship between the change in behavior (i.e., an increase or a decrease) of one variable and the change in behavior (i.e., an increase or a decrease) of another variable. This investigation will lead to a better understanding of *how* and *why* job insecurity is linked to subjective career success and turnover intention.

7.1.1 Job Insecurity as a Stressor

The explanation of the interrelationship between job insecurity, subjective career success and turnover intention is based on Hobfoll's (1989) stress theory "the model of conservation of resources", a commonly used theory in this research context (Chen et al. 2011; De Cuyper et al. 2012a, b; König et al. 2010). The basic idea of this theory is that "people strive to retain, protect, and build resources and that what is threatening to them is the potential or actual loss of these valued resources" (p. 516). Resources are defined as "those objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions, or energies" (p. 516). In our research context, we focus primarily on the resource "employment", a non-material condition according to Hobfoll (1989).

As indicated by Hobfoll (1989), stress is caused not only by the actual loss of resources, but also by the threat that resources may be lost and a lack of resource gain after resource investment. Transferred into our research context, this means that employees who are confronted with job insecurity may fear the loss of their job, which will trigger symptoms of strain.

7.1.2 The Direct Effect: Job Insecurity Predicts Turnover Intention

The model of conservation of resources predicts that stress causes individuals to strive to minimize loss of resources. In a context where an employee fears he/she may lose their job, one option the individual may take to reduce this risk is to search for and to accept a new job that offers a higher level of job security. This reaction to a high level of job insecurity is demonstrated in Blau's (2007) longitudinal study over a period of 1 year: individuals' turnover behavior correlated with their job search activity and was explained by job insecurity. These links are also displayed in Direnzo and Greenhaus' (2011) model of job search and voluntary turnover: Individuals conduct job searches in order to increase their career opportunities, career competences, and employability and, ultimately, to be prepared for job loss in periods of high job insecurity. Consequently, individuals demonstrate voluntary

turnover if a good opportunity is found, instead of simply changing their job because they are forced to by job loss.

Besides job insecurity, an additional and highly relevant factor explaining turnover behavior in Blau's (2007) study was the intention to leave the organization. As previous research has indicated (Griffeth et al. 2000; Steel 2002), turnover intention is the best predictor of whether an employee will indeed leave the organization or not. For this reason, in our study we test an individual's reaction to job insecurity by measuring one's turnover intention. We assume that employees react to a high level of job insecurity over time with a high level of turnover intention, a relationship which is widely confirmed (Berntson et al. 2010; Chirumbolo and Hellgren 2003; Dekker and Schaufeli 1995; Staufenbiel and König 2010).

An initially high level of job insecurity places certain demands on an employee. If over time that level of job insecurity systematically increases, this can be experienced as particularly stressful because it may be indicative of the potential loss of job and job-related factors which are essential for an individual's well-being. Imagine the following situation: Two employees in the same organization report an identical, relatively high level of job insecurity (e.g., a rating of 4 on a five-point Likert scale). While one employee's job insecurity has increased from 2 to 4, the other employee's job insecurity has decreased from 5 to 4. These respective change-over-time differences are not reflected in their identical levels of job insecurity but may indeed have a significant effect on their respective turnover intentions (cf. Chen et al. 2011). This effect is in line with Hobfoll's (1989) model which indicates that an increase in job insecurity triggers the threat of a loss of resources regardless of the initial level of that job insecurity.

Based on these findings, we made the following two predictions concerning the relationship between both the initial level of job insecurity and turnover intention and the change in job insecurity and turnover intention (see Fig. 7.1; the letters associated with the arrows (paths) refer to our hypotheses):

Hypothesis 1a: Initial level of job insecurity is positively related to initial level of turnover intention.

Hypothesis 1b: The greater the rate of increase in job insecurity, the greater the rate of increase in turnover intention.

7.1.3 The Indirect Effect: Subjective Career Success as the Intervening Variable

After focusing on the direct link between job insecurity and turnover intention, we will proceed with arguments for the indirect link through subjective career success. Once again, we use Hobfoll's (1989) model "conservation of resources", which is based on two main principles. One principle states that, "Individuals are motivated

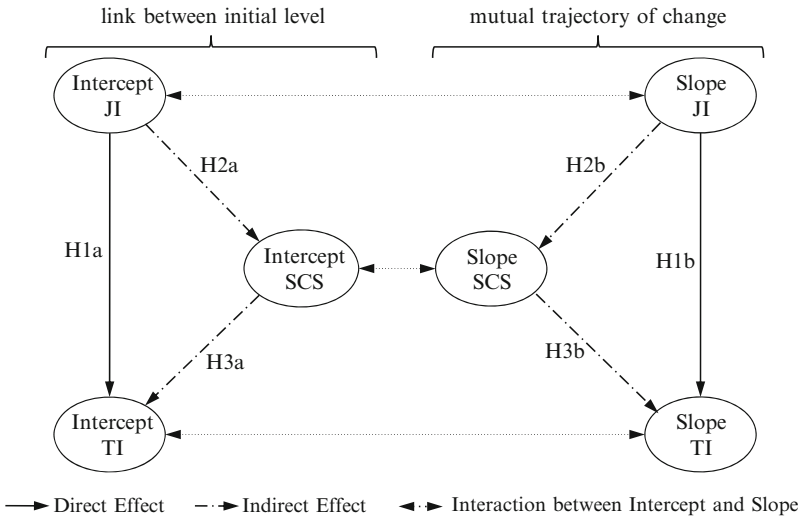

Fig. 7.1 Theoretical model: The interrelationship of job insecurity (JI), subjective career success (SCS), and turnover intention (TI) separated along links between initial levels and mutual trajectories of change

to gain resources. This motivation drives people to invest resources in order to enrich their resource pool." (p. 520). Transferred into our research context, we conclude that individuals invest time and energy into their employment to accumulate resources like money and socioeconomic status and also to enhance their competencies, career trajectory, and career success. Investment in one's own career is gaining in importance, particularly at the current time, when organizations are reducing their input and shifting the responsibility of career planning to their employees. In line with this shift in responsibility (Briscoe and Hall 2006; Hall 1996), subjective satisfaction with one's own career success is a relevant subjective indicator for career progression (Hall 2004). Thereby, subjective career success is defined as the "individuals' subjective judgments about their career attainments" (Ng et al. 2005, pp. 368–369).

In cases of high job insecurity, successful career development within the current organization might be jeopardized. Otto et al. (2011) showed that restricted career development possibilities result in low subjective career success. Thus, low subjective career success is one of the negative consequences of job insecurity. To replicate Otto et al.'s findings in a cross-sectional design, we assume that we will find a negative effect of initial level of job insecurity on initial level of subjective career success.

Moreover, a mutual trajectory of change between job insecurity and subjective career success is expected. In other words, unrelated to the initial level of experienced job insecurity, individuals might face an increase or decrease in their sense of job insecurity over time. This development may be reflected in a change of an

individual's subjective career success appraisal. Accordingly, we suppose that changes in job insecurity predict a change in subjective career success.

Hypothesis 2a: Initial level of job insecurity is negatively related to initial level of subjective career success.

Hypothesis 2b: The greater the rate of increase in job insecurity, the greater the rate of decline in subjective career success.

The second part of the indirect link between job insecurity and turnover intention concerns the relationship between subjective career success and turnover intention. According to Hobfoll (1989), an interesting job with promising career opportunities and corresponding subjective career success belongs to the resources of non-material conditions. Again, individuals are concerned about retaining and protecting this resource.

Employees may perceive a decrease in subjective career success as stressful and frustrating because, according to Hobfoll (1989), this decline can either be interpreted as a loss or decline of resources or it indicates a progressively dissatisfying career trajectory. To avoid such a decline of resources or to reinvest in one's own career development, employees may search for a new job with better career options (Bidwell and Briscoe 2010; Direnzo and Greenhaus 2011). We assume this would be shown by increased turnover intention. Yet thus far, to the best of our knowledge, no former study has investigated the interrelationship between change in subjective career success and change in turnover intention. However, Chen et al. (2011) found comparable results in their study regarding the mutual trajectory of change between job satisfaction and turnover intention; in particular, individuals with a decline in job satisfaction showed an increase in their intentions to leave the job. Furthermore, Arthur et al. (2005) proposition indicates support for our assumption. They stated that individuals who change organizations voluntarily are likely to view their careers as successful.

Moreover, we would expect to find a link between initial levels between subjective career success and turnover intention. We argue that employees with a low initial level of subjective career success show high turnover intention (Joo and Park 2010) because they are not satisfied with their career so far, and they therefore attempt to improve it (Arthur et al. 2005). Our expected link between initial subjective career success and initial turnover intention may turn out to yield similar results as provided by the considerable amount of research concerning the cross-sectional job satisfaction-turnover intention link (Chirumbolo and Hellgren 2003; Davy et al. 1997; De Moura et al. 2009; Griffeth et al. 2000; Hom and Griffeth 1991; Moynihan and Landuyt 2008).

Based on these findings and arguments, we assume the following hypotheses:

Hypothesis 3a: Initial level of subjective career success is negatively related to initial level of turnover intention.

Hypothesis 3b: The greater the rate of decline in subjective career success, the greater the rate of increase in turnover intention.

7.2 Method

7.2.1 Overview

We tested our hypotheses with longitudinal data collected from a larger project of a representative annual telephone survey of employees in Switzerland (see also, Feierabend et al. 2011; Gerber et al. 2009a, b). Participants took part in three telephone interviews in spring 2007, 2008, and 2009. These 1-year intervals was chosen based on previous studies regarding appropriate time lags for studying similar constructs (e.g., Berntson et al. 2008; Cable and DeRue 2002; Carless and Arnup 2011; Hellgren and Sverke 2003; Weigl et al. 2010; Wong et al. 1995). Longitudinal data from all three waves of measurement are reported here for the first time.

7.2.2 Procedure and Participants

The data were collected using a telephone interview asking predefined questions. To recruit the sample in 2007, telephone numbers were randomly drawn from all those registered in Switzerland (except from the Italian speaking part of the country). From a baseline sample of 1,370 participants in 2007, we selected 431 participants (31.5 % participation rate) who were willing to take part in the second wave of measurement. In the last wave of measurement, 255 participants were interviewed a third time (response rate: 59 %). Non-attendance was due to unattainability, retirement, or lack of interest. Finally, the following analyses were performed with those 255 employees who participated in all three interviews (spring 2007 (T1), spring 2008 (T2), and spring 2009 (T3)).

The employees included in the sample were employed at least 40 % and aged between 16 and 65 years. Self-employed individuals and those in an apprenticeship were excluded from the study due to the focus of the bigger research project in which the data collection was embedded.

The present sample comprised 43 % female employees. Participants' average age was 46 years ($SD = 8.6$ years) and their average work experience within the organization was 10 years ($SD = 8.4$ years). About 35 % of the participants held a Bachelor's, Master's or equivalent degree. The employees were spread over a wide range of industries. A total of 65 % of the participants were full-time, while 4.3 % were temporary or contract employees.

To ensure that there was no systematic bias in the study sample, chi-square and unpaired t-tests were first used to compare the final sample ($N = 255$) with the dropout rate between T2 and T3 (176 people), and second, to compare the final sample with the baseline sample at T1 (1,370 participants). Participants with complete data for all three waves of measurement did not differ from the dropout between T2 and T3 with respect to socio-demographic characteristics like sex ($\chi^2 = 0.07$,

$p = .59$), age ($t(336) = -0.83$, $p = .41$), organizational tenure ($t(327) = 1.13$, $p = .26$), education ($\chi^2 = 1.16$, $p = .28$), percentage of full-time employees ($\chi^2 = 0.52$, $p = .47$), and temporary employees ($\chi^2 = 3.25$, $p > .07$), as well as the examined construct variables at T1, as in job insecurity T1 ($t(429) = -0.65$, $p = .52$), subjective career success T1 ($t(429) = 0.78$, $p = .44$), and turnover intention T1 ($t(429) = 1.28$, $p = .20$). Additionally, participants with complete data for all three waves of measurement did not differ from the 2007 baseline sample with respect to socio-demographic characteristics like sex ($\chi^2 = 0.40$, $p = .53$), organizational tenure ($t(419) = 0.22$, $p = .83$), education ($\chi^2 = 0.03$, $p = .87$), and percentage of full-time employees ($\chi^2 = 0.93$, $p = .63$), as well as the construct variables examined at T1, as in job insecurity T1 ($t(1368) = 0.41$, $p = .68$) and subjective career success T1 ($t(1368) = 0.01$, $p = .99$). However, participants included in the final sample were slightly older ($t(447) = -3.14$, $p = .002$), had fewer temporary contracts ($\chi^2 = 5.45$, $p = .02$), and had had a slightly lower turnover intention at T1 ($t(1368) = 2.10$, $p < .04$) than the 2007 baseline sample.

7.2.3 Measures

All measures were assessed at all three times of measurement.

Job insecurity Two items on job insecurity were adapted from Borg's (1992) job insecurity scale: "I suspect that I will lose my job in the near future" and "I feel uneasy with the thought that I could lose my job in the near future". Items used a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alpha for the two items was .53 (T1), .79 (T2), and .77 (T3).

Subjective career success We operationalized subjective career success in terms of Greenhaus et al.'s (1990) career satisfaction scale. Instead of the whole five-item scale, a selection of three items was used because this study was part of a bigger project and survey space was limited. The selected items, based on face validity, were: "I am satisfied with the success I have achieved in my career", "I am satisfied with the progress I have made towards meeting my overall career goals", and "I am satisfied with the progress I have made towards meeting my goals for advancement". Participants based their responses on a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alpha was .86 (T1), .86 (T2), and .85 (T3).

Turnover intention We measured turnover intention using two items developed by Guest and Conway (2004). The first item was: "How likely is it that you will voluntarily leave this organization in the following year?" The responses were measured on a four-point Likert scale ranging from 1 (*very unlikely*) to 4 (*very likely*). For the second item, participants had to choose one out of four ordinal ordered statements that matched their preference best (e.g., "I am currently in the process of trying to leave this job."). Cronbach's alpha for the two items was .77 (T1), .74 (T2), and .66 (T3).

Control variables We controlled for age, education, and change of employer, which the literature has shown to be influential on one to several of our examined constructs (Cheng and Chan 2008; Chirumbolo and Areni 2010; Klehe et al. 2011; Mauno et al. 2005; Moynihan and Landuyt 2008). Age was reported in years; education (1 = Bachelor or Master degree, 0 = lower education level), and change of employer (0 = no employer change, 1 = employer change) were measured with dichotomous variables. Change of employer was coded with one general variable, representing a time period of 2 years. Moreover, we expected a relationship between change of employer and age (Crossley et al. 2007). Thus, these variables were allowed to co-vary in the latent growth model.

7.2.4 Data Analysis

Analyses are based on a latent growth modeling (LGM) approach with maximum likelihood estimation (AMOS 19.0; Arbuckle 2010). LGMs are the most flexible models to study inter-individual differences in intra-individual change (cf. Duncan et al. 2006; Preacher et al. 2008). In order to explain whether the initial status of one variable is related to the initial status of another variable and also whether, over a period of time, change in one variable corresponds with change in another variable, the individual intercepts and slopes from one construct can be correlated to those of other constructs (Duncan et al. 2006). As a result of measurement errors being taken into consideration, it is possible to estimate unbiased true change trajectories for each person taking part. Furthermore, several fit indices are available that allow the comparison of competing models according to their fit to the data (Blunch 2008; Geiser 2010).

In particular, the goodness-of-fit of the estimated models was evaluated by an established set of indices and conventional rules of thumb for their cut-offs (Blunch 2008; Duncan et al. 2006). A score lower than 3.0 on the relative χ^2/df-test signifies an acceptable fit and a score below 2.0 is the sign of a good fit. Tucker Lewis Index (TLI) and Comparative Fit Index (CFI; Bentler 1990) should be .90 or higher. A score that falls below .08 on the Root Mean Square Error of Approximation (RMSEA) is satisfactory, and a score below 0.5 indicates a good fit. The 90 % confidence interval (CI_{RMSEA}) and the p-value for the test that RMSEA exceeds .80 in the overall population are reported. Different models were compared to each other by means of the χ^2-difference test (Blunch 2008; Bühner 2006).

In the first step of our analysis and in order to test our measurement model, we conducted a confirmatory factor analysis (CFA) of the 21 respective items (for each of the three points in measurement, two items of job insecurity, three items of subjective career satisfaction, and two items of turnover intention were included). Several a priori factor models were compared, including one-, three-, six-, and nine-factor models. In the one-factor model, all 21 items were combined in one single factor. In the three-factor models, either all items from the same wave or all items from the same constructs across measurement points were combined in a factor. In

the six-factor models, for each wave of measurement the items of two constructs were systematically combined to one factor, whereas the items of the remaining construct built another factor to test the empirical distinctness of the three constructs. In the nine-factor model, each construct across each point in measurement represented a factor. Consistent with common practice, measurement errors from the same items across a period of time were allowed to co-vary across waves in order to account for their non-independence (Geiser 2010). This practice also applies to all subsequent analyses.

Additionally, measurement invariance was tested in order to confirm that the nature of the measurement instruments did not change across time. For this purpose, the relationships between indicators of a construct and the construct itself should remain unchanged across the three waves of data collection (weak factorial invariance) (Chan 1998; Geiser 2010).

The second step in our analyses involved developing a multivariate latent growth model (MLGM). We modeled the individual growth curves for job insecurity, subjective career success, and turnover intention across the three waves of data collection. In particular, each construct was composed of an *intercept* representing the initial value (to test the links between initial levels) and a *slope* representing change (to test the mutual trajectories of change), based on the latent variables.

Factor loadings linking the intercept to the latent variables per year were set to 1. Factor loadings linking the slope to the latent variables per year represent the relative time spans (number of years) between the first assessment of the study variables and each subsequent wave of data collection. Setting them to 0 for T1, 1 for T2, and 2 for T3, linear growth curves (i.e., *linear slopes*) were modeled.

Based on this MLGM and by means of regression paths, we could assess the degree to which intercepts and slopes of two or more variables of interest predicted one another. These regression paths provided information concerning the extent to which change in one variable coincided with change in a second variable. Their magnitude and statistical significance allowed for a test of our hypotheses.

In step three, time-invariant control variables (age, education, and change of employer) were included in the MLGM. Based on previous research results, all intercepts and slopes were regressed on one or all control variables in order to estimate unbiased associations between the construct measures.

7.3 Results

7.3.1 Inter-correlations Across All Measures

For clarification, we provide all means, standard deviations, and inter-correlations of the primary constructs at each of the three waves of measurement (Table 7.1). All constructs showed relatively high test-retest stability (correlations varied between .30 and .61). In addition, the correlations in this table provide some preliminary

Table 7.1 Descriptive statistics, Pearson correlations, and reliabilities

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Sex[a]	.57															
Age	43.80	8.65	.02													
Education[b]	.35		.07	−.14*												
Organization tenure	10.46	8.52	.10	.45**	−.07											
Employer change[c]	.11		.12	−.09	.10	−.15*										
Job insecurity T1	2.09	.94	−.08	−.04	.04	−.03	.17**	(.53)								
Job insecurity T2	1.79	.87	−.13*	−.01	.01	.03	.15*	.42**	(.79)							
Job insecurity T3	1.86	.75	−.07	−.05	−.03	−.01	.08	.40**	.59**	(.77)						
Subj. career success T1	4.01	.80	−.00	.05	.14*	.00	−.12	−.22**	−.29**	−.27**	(.86)					
Subj. career success T2	4.04	.74	.01	.17**	−.01	.09	−.03	−.17**	−.26**	−.23**	.61**	(.86)				
Subj. career success T3	3.99	.69	.08	.11	.03	.04	.00	−.30**	−.28**	−.29**	.60**	.65**	(.85)			
Turnover intention T1	1.82	.83	.08	−.24**	.12*	−.12	.27**	.28**	.18**	.11	−.22**	−.16**	−.15*	(.77)		
Turnover intention T2	1.78	.84	.08	−.29**	.11	−.17**	.13*	.26**	.29**	.23**	−.22**	−.12	−.20**	.45**	(.74)	
Turnover intention T3	1.76	.78	.10	−.18**	.15*	−.04	−.01	.20**	.21**	.26**	−.11	−.12	−.24**	.30**	.50**	(.66)

Note. $N = 255$

Scale reliabilities are reported along the diagonal in parentheses

*$p < .05$; **$p < .01$.

[a]0 = female, 1 = male

[b]0 = low education, 1 = high education

[c]0 = no employer change, 1 = employer change

support for our hypotheses: Apart from one exception—correlation between subjective career success and turnover intention at T2—job insecurity, subjective career success, and turnover intention measures are correlated with one another at all three points of measurement. All these values were estimated using PASW Statistics 18.0.

7.3.2 Measurement Model of Job Insecurity, Subjective Career Success and Turnover Intention

The measurement model was tested by allocating the respective 21 construct items to a one-factor model (general factor), to two different three-factor models (which combined all items either from the same wave across constructs or the same constructs across measurement points), and to a nine-factor model (job insecurity, subjective career success, and turnover intention for each of the three waves of measurement) by means of a CFA. The nine-factor model showed a good fit ($\chi^2(138) = 218.71$; $p < .001$; $\chi^2/df = 1.59$; TLI = .95; CFI = .97; RMSEA = .048; $CI_{RMSEA} = [.036; .060]$, $p = .60$), and the best fit compared to the alternatively tested measurement models. To confirm the empirical distinctness of the three constructs, we systematically combined items from two constructs under one factor, which resulted in three alternative six-factor models (cp., Weigl et al. 2010). None of them yielded acceptable fit (see Table 7.2).

Furthermore, the supported nine-factor model was tested for weak factorial invariance (measurement invariance). Factor loadings of the same items across the three waves of measurement were constrained so that they were equal for T1, T2, and T3. This applied only to the factor loadings of subjective career success, because the factor loadings for both job insecurity and turnover intention were a priori set to 1 to achieve an identified model (Bühner 2006). The resulting change in chi-square was non-significant ($\Delta\chi^2(4) = 2.07$, $p = .72$). Accordingly, subjective career success was metric invariant across time, and the invariance constraints were retained in subsequent analyses.

7.3.3 Multivariate Latent Growth Model of the Relationship Between Job Insecurity, Subjective Career Success and Turnover Intention

The measurement model was supplemented and transformed into a MLGM, where, in line with the hypotheses, job insecurity predicts subjective career success and turnover intention, and subjective career success also predicts turnover intention. Additionally and in accordance with the MLGM literature, the slopes were regressed on all intercepts (Duncan et al. 2006; Preacher et al. 2008). The

Table 7.2 Latent growth modeling results

	χ^2	*df*	χ^2/df	TLI	CFI	RMSEA [CI]
CFA						
CFA: 1 factor (general factor)	1500.75***	174	8.63	.37	.47	.173 [.165; .181]***
CFA: 3 factors (each wave combined across constructs)	787.78***	165	4.76	.69	.75	.122 [.113; .130]***
CFA: 3 factors (each construct combined across waves)	703.17***	165	4.26	.73	.79	.113 [.105; .122]***
CFA: 6 factors (job insecurity-subj. career success combined)	526.07***	156	3.37	.80	.85	.097 [.088; .106]***
CFA: 6 factors (job insecurity-turnover intention combined)	474.17***	156	3.04	.83	.87	.090 [.080; .099]***
CFA: 6 factors (subj. career success-turnover intention combined)	511.88***	156	3.28	.81	.86	.095 [.086; .104]***
CFA: 9 factors (covariance of residuals associated with same item)	218.71***	138	1.59	.95	.97	.048 [.036; .060] ns
CFA: 9 factors (invariance across waves)[a]	220.79***	142	1.56	.95	.97	.047 [.034; .058] ns
MLGM (time-invariant control variables excluded)						
MLGM: Basic model	248.95***	166	1.5	.96	.97	.044 [.032; .055] ns
MLGM: Effects of intercepts on slopes excluded[b]	253.14***	172	1.47	.96	.97	.043 [.031; .054] ns
MLGM (time-invariant control variables included)						
MLGM: CV on all intercepts and slopes	347.65***	219	1.59	.94	.95	.048 [.038; .057] ns
MLGM: CV on all intercepts and only CoE on slopes: Final model[c]	354.29***	225	1.58	.94	.95	.048 [.038; .057] ns
MLGM: CV only on intercepts[d]	372.75***	228	1.64	.93	.95	.050 [.041; .059] ns

Note. $N = 255$

CV = control variables, CoE = change of employer, χ^2 = chi-square discrepancy, *df* = degrees of freedom, χ^2/df = relative chi-square, TLI = Tucker Lewis Index, CFI = Comparative Fit Index, RMSEA = Root Mean Square Error of Approximation, CI = 90 % Confidence Interval, Δdf = change in degrees of freedom, $\Delta\chi^2$ = change in chi-square

***$p < .001$

[a]Invariant factor loadings; compared to unconstrained model: $\Delta\chi^2(4) = 2.07, p = .72$

[b]Effects of intercepts on slopes excluded; compared to LGM basic model: $\Delta\chi^2(6) = 4.19, p = .65$

[c]MLGM final Model; compared to CV on all intercepts and slopes: $\Delta\chi^2(6) = 6.64, p = .36$

[d]MLGM CV only on intercept; compared to CV on all intercepts and CoE on slopes: $\Delta\chi^2(3) = 18.46, p < .001$

MLGM fit the data reasonably well ($\chi^2(166) = 248.95$; $p < .001$; $\chi^2/df = 1.50$; TLI = .96; CFI = .97; RMSEA = .044; $CI_{RMSEA} = [.032; .055]$, $p = .79$; Table 7.2).

Based on missing theoretical justification for the regression paths of the intercepts on the slopes and to test a more parsimonious model, a MLGM was tested

Table 7.3 Means and variances for growth parameter estimates of job insecurity, subjective career success, and turnover intention

	Intercept		Slope	
	Mean	Variance	Mean	Variance
Job insecurity	.86***	.39***	.06*	.07**
Subj. career success	2.81***	.29***	−.03	.04
Turnover intention	2.71***	.34***	−.08*	.07*

Note. $N = 255$
*$p < .05$; **$p < .01$; ***$p < .001$

without any regression paths of the intercepts on the slopes (see Fig. 7.1). The resulting change in chi-square was non-significant ($\Delta\chi^2(6) = 4.19, p = .65$). Thus, these deleted regression paths were retained in subsequent analyses.

As a final step, the time-invariant control variables were included in the MLGM. To find the best fit, we followed a stepwise approach. First of all, regression paths from all control variables (age, education, change of employer) on all intercepts and slopes were set. Moreover, in accordance to theoretical considerations, two control variables were allowed to co-vary (change of employer and age). The MLGM with the included time-invariant control variables fit the data well ($\chi^2(219) = 347.65$; $p < .001$; $\chi^2/df = 1.59$; TLI = .94; CFI = .95; RMSEA = .048; $CI_{RMSEA} = [.038; .057]$, $p = .62$; Table 7.2). In order to find a more parsimonious model, the regression paths of control variables on slopes were deliberately deleted. However, the model fit significantly worsened ($\Delta\chi^2(9) = 25.10$; $p < .003$). A stepwise approach showed that the regression paths from the control variables age and education on all slope factors could be deleted, but not the regression paths from the control variable change of employer. In particular, deleting the mentioned regression paths resulted in a non-significant change in chi-square ($\Delta\chi^2(6) = 6.64, p = .36$).

For this final model, all growth parameter estimates were significant except for the slope of subjective career success (see Table 7.3). That is, the mean level of job insecurity and turnover intention increased considerably over time. Furthermore, participants' initial levels for all three factors differed noticeably, as did their growth curves for job insecurity and turnover intention but not for subjective career success. The intercepts and slopes for job insecurity and subjective career success interrelated significantly (see Fig. 7.2).

7.3.4 Hypotheses Testing

For testing the hypotheses, the MLGM was used with the included time-invariant control variables in order to estimate unbiased associations between the constructs in focus. While in a MLGM without control variables the same paths were statistically significant, only those values from the model with the included control variables are reported.

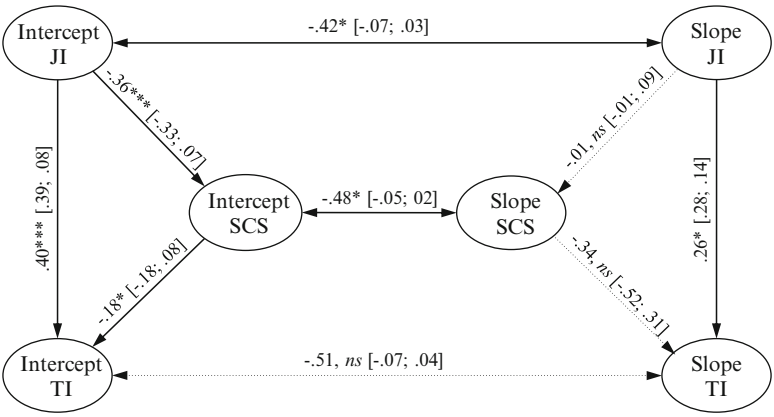

Fig. 7.2 Conditional associative model for job insecurity (JI), subjective career success (SCS), and turnover intention (TI) over time (*Note*. $N = 255$. Measurement models and control variables are not displayed for clarity reasons. Entries are standardized regression weights [unstandardized regression weights; standard errors] $^{*}p < .05$; $^{***}p < .001$)

Supporting Hypothesis 1a, initial job insecurity (intercept) had a positive influence on initial turnover intention (intercept; $\beta = .40$, $p < .001$; Fig. 7.2). Participants with higher job insecurity reported a higher turnover intention than participants with lower job insecurity. Supporting Hypothesis 1b, job insecurity change (slope) had a positive influence on turnover intention change (slope; $\beta = .26$, $p = .05$). In addition to the link between initial job insecurity and initial turnover intention, participants with a higher increase in their job insecurity showed more growth in their turnover intention.

Supporting Hypothesis 2a, initial job insecurity (intercept) had a negative influence on initial subjective career success (intercept; $\beta = -.36$, $p < .001$). Participants with higher job insecurity reported lower subjective career success than participants with lower job insecurity. Job insecurity change had no effect on changes in subjective career success (slope; $\beta = .01$, $p = .99$). Accordingly, Hypothesis 2b was not supported.

Supporting Hypothesis 3a, initial subjective career success (intercept) had a negative influence on initial turnover intention (intercept; $\beta = -.18$, $p = .03$). Participants with higher subjective career success reported lower turnover intention than participants with lower subjective career success. An increase in subjective career success had no effect on changes in initial turnover (slope; $\beta = -.34$, $p = .09$). Accordingly, Hypothesis 3b was not supported.

7.3.5 Effects of Control Variables

The beta effects of the control variables can be seen in Table 7.4. We found that change of employer is significantly related to the initial level of job insecurity and

Table 7.4 Beta effects of age, education, and employer change on the latent growth parameter in the conditional model

	Job insecurity		Subj. career success		Turnover intention	
	Intercept	Slope	Intercept	Slope	Intercept	Slope
Age	−.03		.13*		−.29***	
Education[a]	−.11		.12*		.15**	
Employer change[b]	.27***	−.16	−.04	.20*	.33***	−.28*

Note. $N = 255$
*$p < .05$; **$p < .01$; ***$p < .001$
[a]0 = low education, 1 = high education
[b]0 = no employer change, 1 = employer change

turnover intention, and is also significantly related with the slope of subjective career success and turnover intention. This reflects the fact that participants with high initial levels of job insecurity and turnover intention changed employers more often, and that a change of employer increased the growth of subjective career success whereas turnover intention declined. We also found that participants with higher levels of education (Bachelor, Master's or comparable degree) were more satisfied with their career. Moreover, younger participants stated that they had lower subjective career success and a higher turnover intention. Finally, high turnover intention was predicted by having a higher education.

7.4 Discussion

The main focus of our study was to clarify the how and why of the relationship between job insecurity and employee turnover intention. To get an extended understanding of this link, both the direct effect of job insecurity on turnover intention and the indirect effect mediated by subjective career success was examined. To our knowledge, this is the first study to investigate this indirect effect through subjective career success. Furthermore, in our research the commonly tested links between initial levels were supplemented by the investigation of the mutual trajectories of change, a focus that has to our knowledge not been adopted so far.

7.4.1 The Direct Effect

In our first hypothesis, we tested the direct link between job insecurity and turnover intention. We expected both a positive link between initial levels and a positive mutual trajectory of change between job insecurity and turnover intention. In line with previous research, we found job insecurity to be negatively associated with turnover intention on an initial level (Berntson et al. 2010; Chirumbolo and

Hellgren 2003; Dekker and Schaufeli 1995; Staufenbiel and König 2010). Besides replicating this link between initial levels, as previous studies have done, we also revealed a negative mutual trajectory of change. In particular, changes over time in job insecurity led to corresponding changes over time in turnover intention. Thus, both aspects of job insecurity, the initial level and the trajectory of change over time, seem to affect employees' turnover intention. We argue that an employee's attempt to leave the organization and find a more secure job is caused by one's present fear as well as an increase in fear about losing that job (Dekker and Schaufeli 1995). Losing the job would denote the loss of a highly valued resource and, hence, be experienced as a strain (Hobfoll 1989). To cope with the stress caused by losing such a valued resource, the employee's turnover intention increases and he/she therefore searches for a more secure job (Sverke et al. 2002).

7.4.2 The Indirect Effect

The indirect effect of job insecurity on turnover intention through subjective career success was tested in our second and third hypotheses. In particular, we anticipated a relationship between job insecurity and subjective career success, as well as a relationship between subjective career success and turnover intention. In line with Otto et al.'s (2011) findings and our own assumptions, we found that the higher the general perceived threats of job loss (job insecurity) on an initial level were, the less satisfied the employees were with their career. This result supports our assumption that in an insecure job situation, employees feel that their satisfying career trajectory is impaired, which is reflected in low appraisal of subjective career success. This finding is meaningful when considering that, particularly at the current time, one's own career and satisfaction with one's own career gains in importance (Hall 2004).

Moreover, as shown by the negative association of the initial level of subjective career success and the initial level of turnover intention, dissatisfaction with one's own career results in high intention to quit. This finding reinforces our assumption that satisfaction with one's own career is important for many employees (Hall 2004). If career satisfaction is impaired, as indicated by low subjective career success, employees search for alternatives and show high turnover intention. To sum up, the indirect effect through subjective career success is an important effect to consider when discussing the link between initial levels of job insecurity and turnover intention.

In contrast to the significant indirect relationship at the initial level, the slopes of job insecurity and subjective career success, as well as subjective career success and turnover intention, were not related with each other. Three different explanations could be relevant in understanding why the expected relationships were not found. Firstly, changes in subjective career success might not be affected by changes in job insecurity, but they might, however, be related to an unknown third variable. The very low insignificant covariance between the slope of job insecurity and the slope of subjective career success would support this assumption.

Furthermore, the mutual trajectory of change between subjective career success and turnover intention should also be considered. This relationship didn't reach significance because of the high standard error. This finding suggests that the predictive power is small and should not be interpreted. Secondly, according to Spurk et al.'s (2011) longitudinal study to validate the subjective career success scale, career satisfaction remained more or less stable over a time span of 2 years. The mean of the subjective career success slope did not reach significance in their sample of 1,273 participants, which is similar to our findings. It seems that subjective career success is not a volatile state that adapts quickly to context factors; rather, it seems to be influenced by long lasting conditions. The third explanation attributes the lack of significance in the mutual trajectories of change to a statistical artifact. The variance in the slope of subjective career success was insignificant. This is an inhibitive factor in finding a significant association between the investigated constructs (Preacher et al. 2008). We conclude that subjective career satisfaction has a central function in the link between initial levels between job insecurity and turnover intention but not when examining their mutual trajectories of change.

7.4.3 Additional Findings

To analyze the employees' turnover behavior following high job insecurity, low subjective career success and high turnover intention would be an interesting extension of our research design. Unfortunately, our data were lean and insufficient for a broad analysis and an inclusion of turnover in the latent growth model. Firstly, we only know about change of employer but not about the voluntariness of the turnover. Secondly, the turnover rate for T2 (6 %) and for T3 (4 %) are low and we are missing information about the future turnover rate following turnover intention T3. Therefore, we did not postulate any hypotheses; instead, we used change of employer over a period of 2 years as a control variable.

Nevertheless, the link between change of employer as a time-invariant control variable and job insecurity, subjective career success, and turnover intention revealed interesting additional information. Participants who changed their employer over a time span of 2 years had a higher initial level of job insecurity and turnover intention. This suggests that both a feeling of high job insecurity and the intention to turnover triggered a change of employer, which is in line with previous research (Blau 2007; Griffeth et al. 2000). Moreover, the change of employer during the period of 2 years was related to an increase in subjective career success and a decline in turnover intention. These results further support our theory: In stressful and frustrating periods with high job insecurity, individuals strive to minimize a loss of resources by searching for and accepting a new job (cf. Hobfoll 1989). In the new job, however, the employees are able to rid themselves of some tension, that is they are more satisfied with their career success, and therefore respond with lower turnover intention.

7.4.4 Limitations and Future Research

Although the present investigation makes an important contribution to the job insecurity-turnover intention literature, there are two critical issues that need to be addressed further. The first limitation for consideration is that all the measurements were based on self-reported data. This increases the common method bias and the magnitude of the relationship may be inflated (Podsakoff et al. 2003). However, Spector (2006) has argued that common method bias has to be accepted when investigating highly subjective constructs which cannot be measured differently, other than by asking the respondents themselves. Secondly, as already discussed above, the circumstances surrounding the change of employers were not measured but should be considered in future research in order to explore the theoretical idea if employees with high job insecurity and low subjective career success react by changing their employer.

Furthermore, future research should focus on the role of career satisfaction, particularly by investigating the trajectory of change over time in more detail. Although our findings indicated that job insecurity change is unrelated to subjective career success change, this link might be found for some specific subgroups. For instance, people with a high managerial competence anchor (Feldman and Bolino 1996), a high focus on career (Wrzesniewski et al. 1997), a high independent or promotion-oriented career orientation (Gerber et al. 2009b) might show a decrease in career satisfaction when job insecurity increases because they are more concerned about their subjective career success.

7.4.5 Practical Implications

Based on the results of the present study, there are two major practical implications to point out. Firstly, the finding that job insecurity affects both turnover intention and subjective career success indicates two different possibilities of reacting to the threat of job loss. On the one hand, the direct effect can be understood as a coping strategy where turnover intention is expressed by the search for alternatives in order to buffer the negative effects of a potential job loss and a consequent deterioration of well-being (Berntson et al. 2010; Chirumbolo and Hellgren 2003; Dekker and Schaufeli 1995). The indirect effect, on the other hand, can be understood as a more proactive evaluation of one's own job situation where turnover intention is based more on increasing dissatisfaction with one's own career success than on reacting to a threat. In career coaching, it is useful to increase people's awareness of these different ways of reacting to potential job loss and, in particular, to strengthen the more proactive path. In order to design proper retention measures, it is important for companies to know that job insecurity is not only a possible threat to people but also reduces the subjective sense of success with the on-going employment situation.

The second implication concerns the mutual trajectory of change in job insecurity and turnover intention. This may be taken as an indication of a concurrent and continuous (re-)evaluation of different aspects of the employment situation. Accordingly, employees should ensure that a continuous exchange about their career paths takes place between them and their managers. In companies without such HR instruments, employees should proactively ask for a discussion about their future career opportunities with their line manager.

7.4.6 Conclusion

The present investigation was undertaken in order to increase the understanding of how and why job insecurity affects employee turnover intention. In particular, we analyzed the direct and indirect effect of job insecurity on turnover intention through subjective career success and how these links vary when focusing on the links between initial levels and on mutual trajectories of change. Three main findings should be mentioned. Firstly, according to the predicted direct effect, job insecurity predicted turnover intention when analyzing the link between initial levels and the mutual trajectory of change. This suggests that job insecurity does matter, both for individuals coping with stress and impaired well-being triggered by insecurity and planning their career, as well as for organizations concerned with their employee retention management (Berntson et al. 2010; Chirumbolo and Hellgren 2003; Griffeth and Hom 2001; Kozlowski et al. 1993; Otto et al. 2011). Secondly, in the future two foci are relevant when examining the effects of job insecurity on turnover intention: the initial level and the change development. Thirdly, subjective career success explains additional variance in the initial level of turnover intention in terms of an indirect effect between job insecurity and turnover intention. Consequently, one could conclude that individuals are not only concerned about preserving their paid job but also about their own career.

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Chapter 8
Work Experiences and Well-Being in the First Years of Professional Work in Switzerland: A Ten-Year Follow-Up Study

Wolfgang Kälin, Anita C. Keller, Franziska Tschan, Achim Elfering, and Norbert K. Semmer

8.1 Introduction

Adolescence and young adulthood are times when individuals have to face developmental tasks such as leaving home, establishing social relationships, and entering the labor market (Havighurst 1972). Part of the general psychosocial development is career development, and success in career development affects well-being (e.g., Mäkikangas et al. 2011). The transition from school to work, an important part of career development, is often considered as stressful and characterized by insecurity and instability (e.g., Nelson et al. 1995; Nicholson 1984); however, empirical research tends to find school-to-work transition to be rather smooth (Arnold 1997; Salmela-Aro and Tuominen-Soini 2010; Semmer et al. 2005b).

In Switzerland, as well as in other countries (e.g., Germany), apprenticeships take place within a "dual" system of vocational training, consisting of on-the-job-training within one's organization on the one hand, and attending vocational school on the other hand; the latter includes general education as well as courses specific to one's occupation. Apprenticeships usually take 3–4 years; they are regulated by

W. Kälin (✉) • A. Elfering • N.K. Semmer
Department of Psychology, University of Bern, Fabrikstrasse 8, 3012 Bern, Switzerland

Swiss National Center for Affective Sciences, Geneva, Switzerland
e-mail: wolfgang.kaelin@psy.unibe.ch; achim.elfering@psy.unibe.ch; norbert.semmer@psy.unibe.ch

A.C. Keller
Department of Psychology, University of Bern, Fabrikstrasse 8, 3012 Bern, Switzerland
e-mail: anita.keller@psy.unibe.ch

F. Tschan
Institut de Psychologie du Travail et des Organisations, Université de Neuchâtel, Rez-de-chaussée, Emile-Argand 11, 2009 Neuchâtel, Switzerland

Swiss National Center for Affective Sciences, Geneva, Switzerland
e-mail: franziska.tschan@unine.ch

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government, and they end with both a theoretical and practical exam that implies a license in one's occupation (cf. Kälin et al. 2000; Semmer et al. 2005b; Stalder and Nägele 2011).

Development over the life-span, or at least over longer time periods, has been investigated in a number of projects (e.g., Mäkikangas et al. 2011; Mroczek and Spiro 2005; Salmela-Aro and Tuominen-Soini 2010). For many well-being indicators, a curvilinear development over the life span was found. For example, self-esteem and life satisfaction increase from young to middle adulthood, peaking around 50–60, and decreasing thereafter (Mroczek and Spiro 2005; Orth et al. 2012; Robins and Trzesniewski 2005), whereas depression decreases during young and middle adulthood and increases after the age of 60 (Kessler et al. 1992). However, less research is available on development of resources and stressors at work.

One of the studies that provide information on working conditions over a longer period of time is the Swiss ÆQUAS study (Kälin et al. 2000; see below). Semmer and colleagues (2005b) presented results of this study concerning the first 4 years after entering the labor market. In general, they found task-related job stressors, social stressors, and social support to remain rather stable while job control, but also appreciation, increased. But it remains unclear how these job characteristics develop over a longer period from the labor market entry until a first establishment in one's job is reached (cf. life-span theory of Super; e.g., Super 1980; Super et al. 1996).

In this chapter, we report on career trajectories of young adults in Switzerland in terms of stressors and resources at work, and in terms of well-being, over a period of 10 years, thus extending the analyses previously published (Semmer et al. 2005b). Already then, we did find differences over time, and across occupations, gender, and language regions. For the present chapter we explore stressors, resources, and well-being across occupations, gender, and regions in terms of mean levels 10 years after labor market entry and in terms of trajectories from the end of apprenticeship into the tenth year of "real work".

8.2 Method

8.2.1 Participants

Our analyses stem from the longitudinal panel study ÆQUAS (a German acronym of the project title "Work Experiences and Quality of Life in Switzerland"). This project started with the recruitment of participants from five occupations (sales-people, electronic technicians, bank clerks, nurses, cooks) in the final year of Vocational Educational Training (VET).[1] In the first wave, data were collected in

[1] In Switzerland two forms of VET at the post-secondary level are available: full-time training in vocational schools and the more common "dual" apprenticeship system where individuals have a practical training at work and professional education in vocational schools. VET is attended by more than 60 % of the Swiss adolescents. For a more detailed overview see Kälin et al. (2000) or Stalder and Nägele (2011).

vocational schools, in subsequent years follow-up questionnaires were sent by mail. Data were collected in 1997, 1998, 1999, 2001, and 2007, resulting in a time span of 10 years overall (from age 20 to 30). Of the initial sample, 365 workers continuously participated in each wave.

Drop-out analyses for wave 1 showed, that non-respondents were older, more often female, married, and not living at home. Furthermore, they scored significantly higher in job control and task-related job stressors, and lower in social stressors (Elfering et al. 2007; Kälin et al. 2000).

Of those participants who participated in every wave, 11 % were electronic technicians, 12.9 % were bank clerks, 24.4 % were nurses, 8.2 % were cooks, 6.8 % were salespeople, and 36.7 % changed their occupation over these 10 years. Change of occupation was most frequent among those who started as salespeople (59 %); and still substantial among cooks (46.4 %), and bank clerks (37.3 %). By comparison, nurses (25.8 %) and electronic technicians (24.5 %) changed their occupation less often.

8.2.2 Measures

We present the instruments used in the ÆQUAS study only briefly. For a more detailed overview and information on quality criteria cf. Kälin et al. 2000; Semmer et al. 2005b; Elfering et al. 2007, or contact the authors. We relied on established instruments to assess stressors, resources, and well-being. Task-related stressors and control at work were assessed using the instrument for stress-related job analysis (ISTA; Semmer et al. 1995). Social support at work and in private life was assessed using a scale by Frese (1989), based on the instrument of Caplan et al. (1975). Social stressors were assessed using an 8-item scale by Frese and Zapf (1987). To assess appreciation, participants were asked whether they were treated as beginners versus normal colleagues (Semmer et al. 2005b).

In terms of well-being, we employed measures of a more attitudinal kind, both work-related (job satisfaction and resigned attitude towards one's job; Baillod and Semmer 1994) and more general (positive attitude towards life; Grob et al. 1991). Stress symptoms were assessed with regard to one's ability to detach ("cognitive irritability"; Mohr 1991) and with regard to psychosomatic complaints (Mohr 1991). Self-esteem and depressive mood were assessed by scales developed by Rosenberg (1979), self-efficacy by Krampen (1991).

8.2.3 Analytical Procedure

We are interested in general trajectories over the observed 10 years, and in differences regarding occupation, gender, and region. Therefore, we performed Repeated Measures Analysis of Variance using IBM SPSS, version 19. For every

dependent variable we tested differences in mean levels over the 10 years (within subjects-factors) and differences in gender, region, occupation, and change of employer (between subjects-factors). To test whether groups differed in their mean levels in 2007, we performed Univariate Analysis of Variance. Where indicated, we performed post-hoc tests using Bonferroni correction.

Differences between this publication and results published in 2005 (Semmer et al. 2005b) may be due to a longer time period of observation (4 versus 10 years). Furthermore, different reports on trajectories for occupations may be due to the separate coding of people who changed their occupation over these 10 years.

8.3 Results

8.3.1 Situation of Participants Ten years After Labor Market Entry (Wave 5)

In 2007, that is, at the age of around 30, most participants worked full time (60.0 %); 30 % worked part-time, and 10 % were not employed. Per week, mean working hours were 35.5 h ($SD = 11.2$). Most participants were employed in an organization (86 %), and 5.5 % (20 participants) were self-employed. Around 8 % (7.9 %) of working participants were simultaneously enrolled in advanced training (e.g., leadership training). About one fifth (74 participants, or 22.1 %) reported a position as supervisor. During the 6 years between t4 (2001) and t5 (2007), 42 % of this sample stayed with their employer; 25.5 % changed their employer once, and 31.4 % changed twice or more. Ten years after entering the labor market, 63.3 % still worked within the same occupation, implying a considerable number of participants (36.7 %) who changed their profession.

Participants who were not in the labor market in 2007 indicated to be homemaker (6.7 % of the total sample), to be in full-time advanced education (1.4 %), to receive a disability pension (1.4 %), or to be registered as unemployed (0.5 %). Overall, 37.5 % of participants had at least one child and 74 % were in a stable relationship or married.

8.3.2 Stability and Change over Ten Years

Over the first 10 years after labor market entry, stressors and resources at work did change (Fig. 8.1 shows trajectories of selected stressors and resources): The index of task-related job stressors consists of time pressure, high concentration demands, performance constraints, interruptions, and uncertainty about tasks (Semmer et al. 1995); these stressors increased slightly but significantly ($F(1, 302) = 6.86$, $p < .01$), but so did one of the most important resources, that is, job control

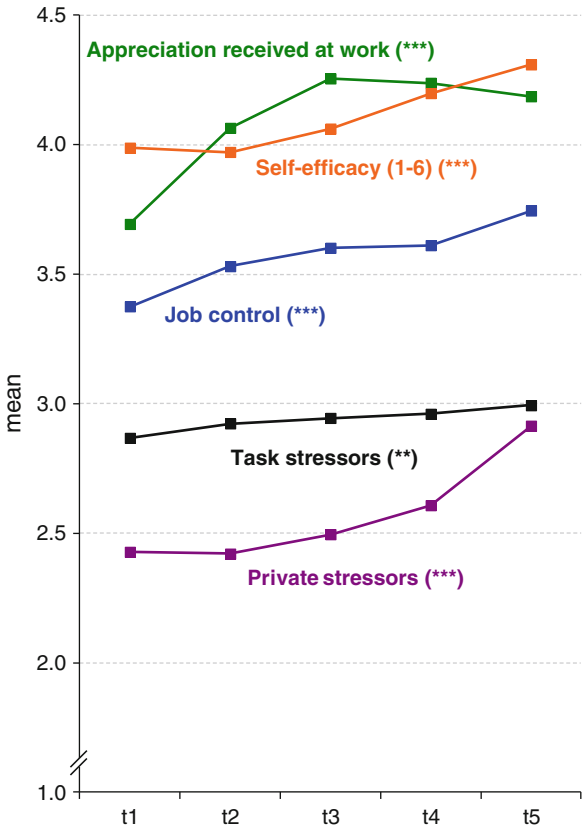

Fig. 8.1 Developmental trajectories of stressors and resources

($F(1, 325) = 14.05, p < .001$) (cf. Fig. 8.1). Job control may help to deal with these stressors as it refers to the possibilities to decide for oneself how (method control) and when (time control) to perform a task; for example, one can decide to perform a difficult task when one feels fit for it (Frese 1989). Many studies have shown more job control to be associated with better well-being and health (Berset et al. 2009; Bosma et al. 1997; De Lange et al. 2003; cf. Sonnentag and Frese 2013). Beyond its role as a resource in the stress process, job control may also contain an organizational message of being trusted and regarded as competent (Pierce and Gardner 2004; Semmer and Beehr 2014). It seems reasonable to assume that young adults at the beginning of their career are likely to gain in job control after successful performance on challenging tasks (Keller and Semmer 2013).

Personal resources remained stable or increased as well over these 10 years. Even though previous research would suggest self-esteem to increase during young and middle adulthood (e.g., Robins et al. 2002), it remained stable for this sample ($F(1, 331) = 2.83, p = .09$). Self-efficacy, however, did increase ($F(1, 328) = 33.20$, $p < .001$). Self-efficacy refers to a person's belief in his or her ability to successfully deal with problems and challenges (Bandura 1997), and it is helpful for coping with

stressful situations (e.g., Meier et al. 2008). For example, previous research suggests that higher levels of self-efficacy are associated with a successful transition from school to employment (Ng and Feldman 2007), higher career goals (Pinquart et al. 2003) but also with a smaller probability of dropping out of an occupational field (Saks 1995), and with fewer periods of unemployment (Pinquart et al. 2003).

Being valued, accepted, and respected is one of the most important motives for many people (Semmer et al. 2005a; Stocker et al. 2010). Appreciation at work increased over the first years, and then slightly decreased (quadratic, $F(1, 233) = 12.60$, $p < .001$). Social support at work, a very important resource (Beehr 1995; Semmer and Beehr 2014), remained stable ($F(1, 285) = 2.35$, $p = .13$) and so did social stressors at work in terms of tension and conflict (Frese and Zapf 1987; Meier et al. 2013) ($F(1, 311) = 0.24$, $p = .62$). Overall, resources at work remained stable (social support) or increased (job control).

Steeper increases were found in private life: Private stressors in terms of not being able to use leisure time as one would like to, disagreements about leisure activities, etc., increased (quadratic, $F(1, 326) = 12.66$, $p < .001$), showing steeper increases after wave 3, while social support in private life remained high and stable ($F(1, 314) = 0.36$, $p = .55$; not shown).

Well-being in terms of attitudinal indicators remained stable, and this applies to work-related variables (job satisfaction: $F(1, 292) = 0.04$, $p = .85$; resigned attitude towards one's job: $F(1, 304) = 0.34$, $p = .56$) as well as to the more general positive attitude towards life: $F(1, 333) = 0.05$, $p = .83$ (cf. Fig. 8.2). Psychosomatic complaints such as sleep problems or aches (e.g., head, stomach, back) decreased ($F(1, 331) = 4.46$, $p < .05$). Difficulties to detach ("cognitive irritability") developed in a quadratic manner (quadratic, $F(1, 318) = 5.40$, $p < .05$): In the first few years after transition to labor market difficulties detaching increased, but then decreased after wave 3 (cf. Fig. 8.2). Depressive mood declined over young adulthood ($F(1, 333) = 15.10$, $p < .001$), which is in line with previous research (Kessler et al. 1992); note that depressive mood does not refer to clinical depression (Rosenberg 1979). Altogether, changes for well-being over these 10 years are predominantly to the better.

8.3.3 Differences Between Occupations

In 2005 we reported meaningful differences across occupations for stressors and resources at work as well as for well-being (Semmer et al. 2005b), and such differences are found in the current analyses as well. Looking at task-related job stressors for the five occupations, trajectories across them differed significantly (quadratic, $F(5, 302) = 2.47$, $p < .05$): nurses still report the highest levels of task-related job stressors; however, they seem to decrease slightly after the third wave. For electronic technicians and bank employees task-related job stressors increased, especially from t4 to t5, while cooks reported a u-shaped development. Mean levels in 2007 differed between nurses and the remaining occupations ($F(5, 299) = 2.28$,

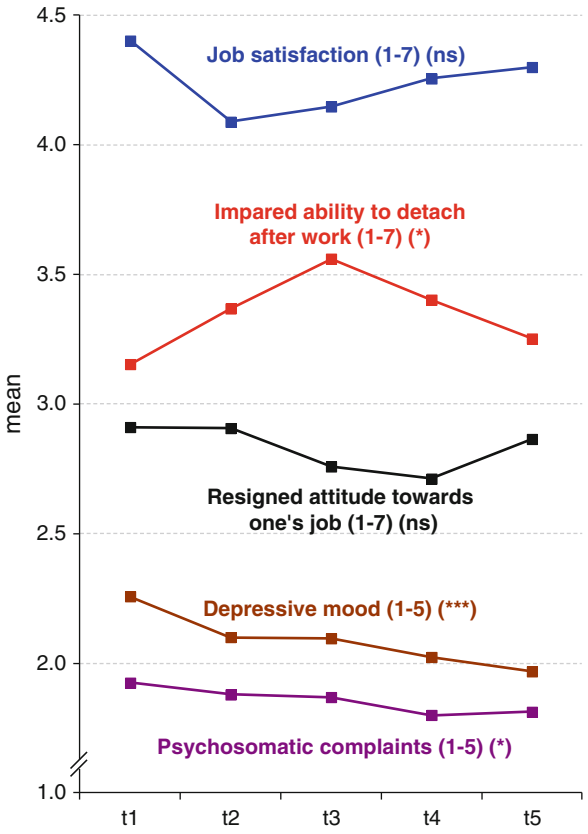

Fig. 8.2 Developmental trajectories of well-being indicators

$p < .05$), with nurses reporting significantly higher levels of task-related job stressors (cf. Fig. 8.3). Altogether, it is apparent that differences across occupations diminish.

With regard to control, mean levels differed across occupations in 2007 ($F(5, 316) = 5.23, p < .001$): Nurses reported significantly lower levels compared to all other occupations. Trajectories in job control differed across occupations as well ($F(5, 325) = 3.25, p < .01$): Whereas there was an overall upward trend in job control for sales, electronics, and young adults who changed their profession, nurses remained stable at a rather low level ($F(1, 80) = 0.93$, $p = .34$). Cooks and young adults in the bank sector increased in job control during the first four waves; from wave 4 to wave 5 job control decreased for bank clerks back to the level of wave 3 while it remained at least stable for cooks (cf. Fig. 8.4). In contrast to stressors, differences seem to get even more pronounced over time.

Mean levels for social support at work did not differ across the five occupations in 2007 ($F(5, 296) = 0.82$, $p = .54$), but trajectories over time did (quadratic, $F(5, 285) = 3.34$, $p < .01$) (cf. Fig. 8.5). For electronics, banking, and cooks, initial increases were followed by later decreases with a turning point in wave

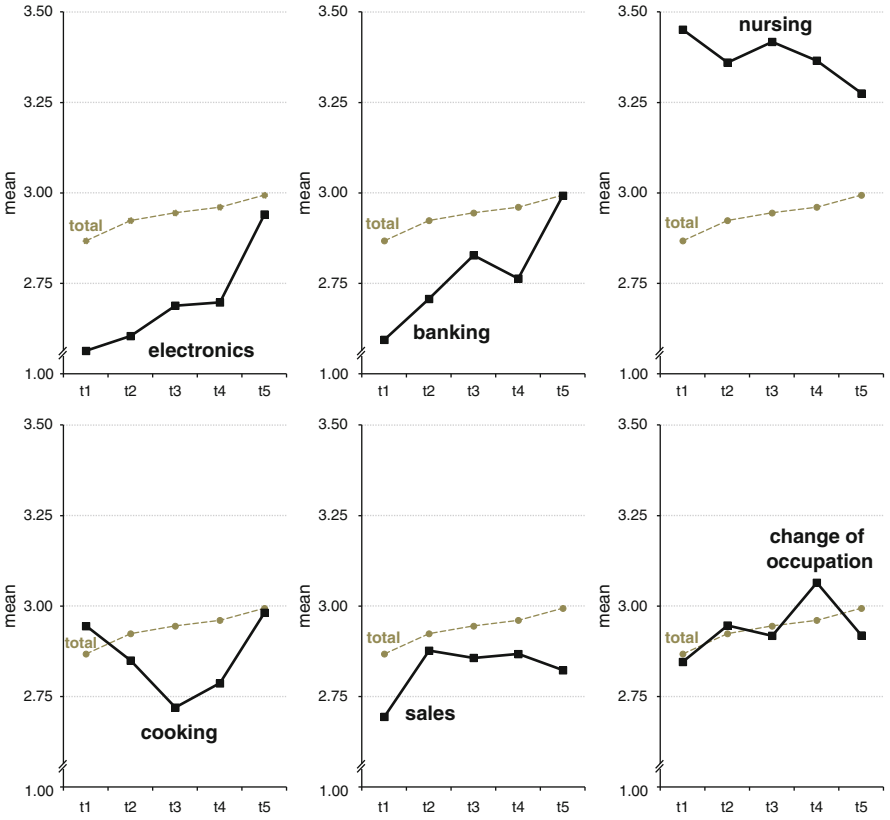

Fig. 8.3 Task-related job stressors over 10 years for five occupations and occupational change

3 (wave 2 for banking). For nurses, social support decreased after wave 1, then increased until wave 4 before it decreased again. Salespeople also reported a quadratic development but a reversed one compared to electronics, banking, and cooks: Social support decreased until wave 3 before it increased again nearly to the initial level. Thus, differences between occupations were small initially, increased over time, and then decreased again, with no differences in the last wave (2007).

In 2007, differences between occupations in mean levels in job satisfaction just missed statistical significance ($F(5, 305) = 1.94$, $p = .09$). But job satisfaction trajectories did differ significantly between occupational groups (quadratic, $F(5, 292) = 5.57$, $p < .001$) (cf. Fig. 8.6). Specifically, salespeople started out high, then decreased sharply and stabilized again towards the last measurement. People who changed their occupation ended up with comparatively high values, and cooks ended up as they had started out, that is, with the lowest values.

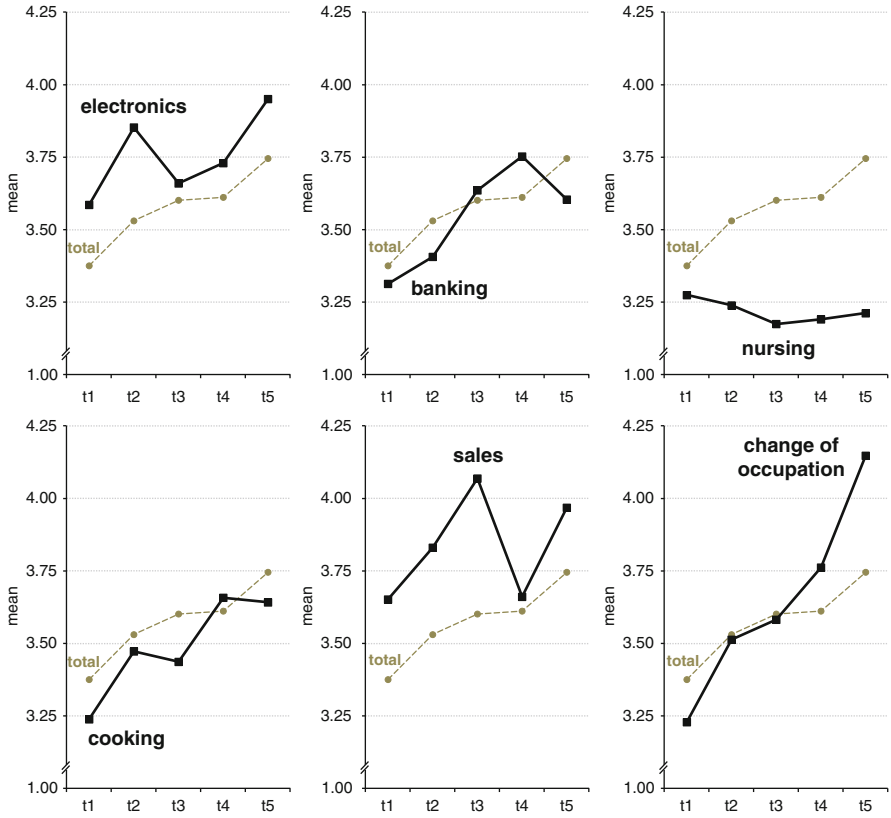

Fig. 8.4 Job control over 10 years for five occupations and occupational change

Positive attitude towards life did not differ significantly across occupational groups, neither in terms of trajectories ($F(5, 333) = 0.81$, $p = .54$), nor in terms of mean levels in 2007 ($F(5, 323) = 1.02$, $p = .40$).

8.3.4 Differences Between Males and Females

Men and women often do not differ very much in their perception of work characteristics (Sonnentag 1996). Similar results were found in our study (cf. Fig. 8.7): By the age of thirty, women and men did not differ significantly in their perceived stressors and resources at work. However several trajectories do differ between men and women: Men reported somewhat steeper initial increases in task-related job stressors, which were followed by a small decrease after wave 3. Women reported slight increases initially, which became steeper after wave 3 (quadratic, $F(1, 302) = 5.02$, $p < .05$).

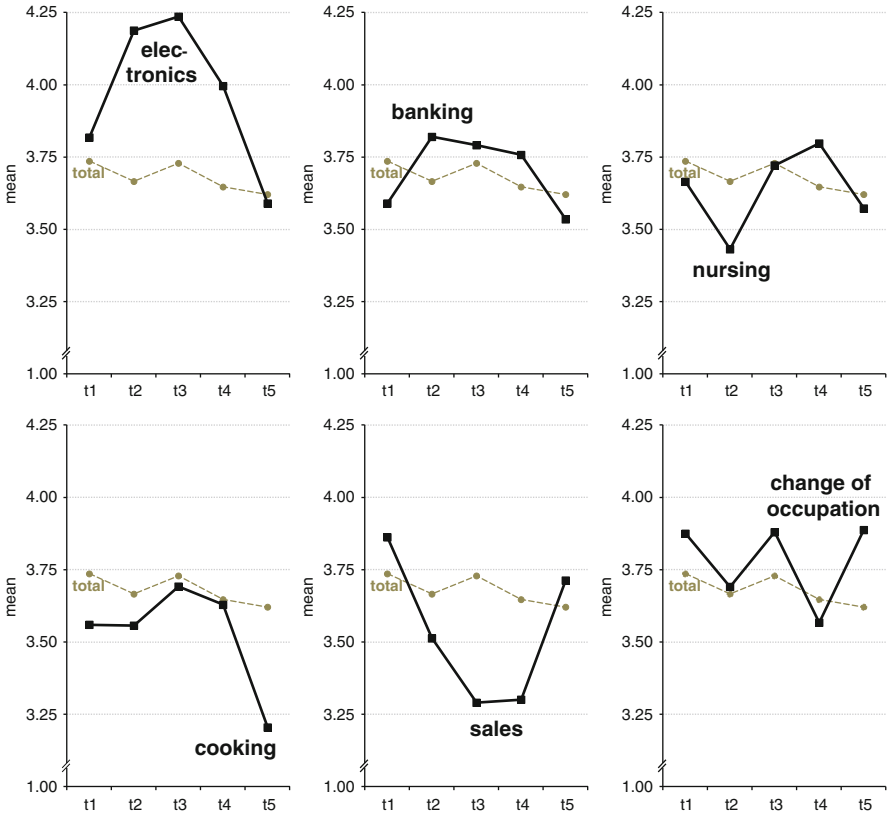

Fig. 8.5 Social support at work over 10 years for five occupations and occupational change

Regarding job satisfaction over the observed 10 years, men reported a u-shaped development (quadratic, $F(1, 292) = 5.73, p < .05$), which is in line with previous research reporting job satisfaction to decrease after labor market entry and to increase later on (Birdi et al. 1995). Women showed a drop between t4 and t5, resulting in a lower mean level of job satisfaction in 2007 by tendency ($F(1, 305) = 2.98, p = .09$).

Concerning well-being, we found trajectory differences between men and women for positive attitude towards life (quadratic, $F(1, 333) = 5.18, p < .05$) and self-esteem ($F(1, 331) = 5.00, p < .05$). For positive attitude towards life women seemed to remain more or less stable over the observed 10 years, whereas men again reported a u-shaped development. For self-esteem there is a mean level difference between men and women in wave 1 ($F(1, 323) = 7.31, p < .01$), with men ($M = 3.97, SE = 0.76$) scoring higher than women ($M = 3.69, SE = 0.76$). Men showed rather stable means for self-esteem while women's self-esteem started lower, increased especially in the first three waves and stayed on a comparable level to men's self-esteem afterwards. For psychosomatic complaints, values were higher

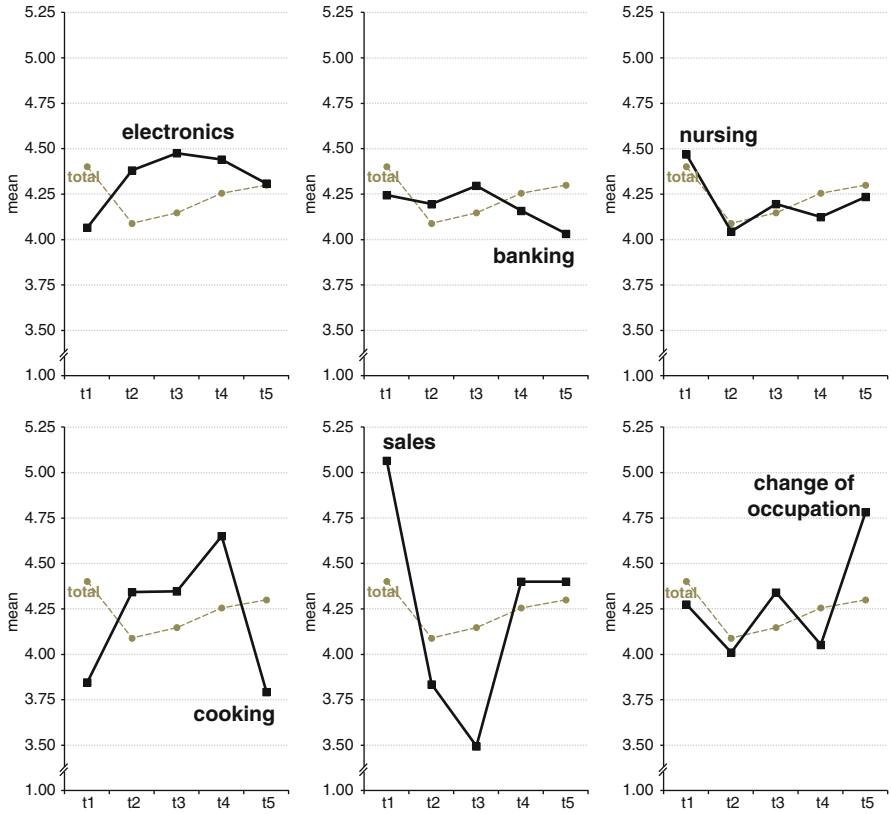

Fig. 8.6 Job satisfaction over 10 years for five occupations and occupational change

for women ($M = 2.00$, $SE = 0.73$) as compared to men ($M = 1.74$, $SE = 0.73$) ($F(1, 322) = 6.43$, $p < .05$); such a result is typically found (cf. Cleveland et al. 2000).

8.3.5 *Differences Between German and French Speaking Part of Switzerland*

As mentioned in the methods section, the ÆQUAS study was conducted in the German and French speaking parts of Switzerland. Some of the observed mean levels and trajectories already differed across the two regions for the first 4 years (Semmer et al. 2005b). These differences were related to differences in working conditions: when analyses were controlled for appreciation, social support, and job control, differences in well-being across the two regions diminished or disappeared (Semmer et al. 2005b). Mean levels of various resources and

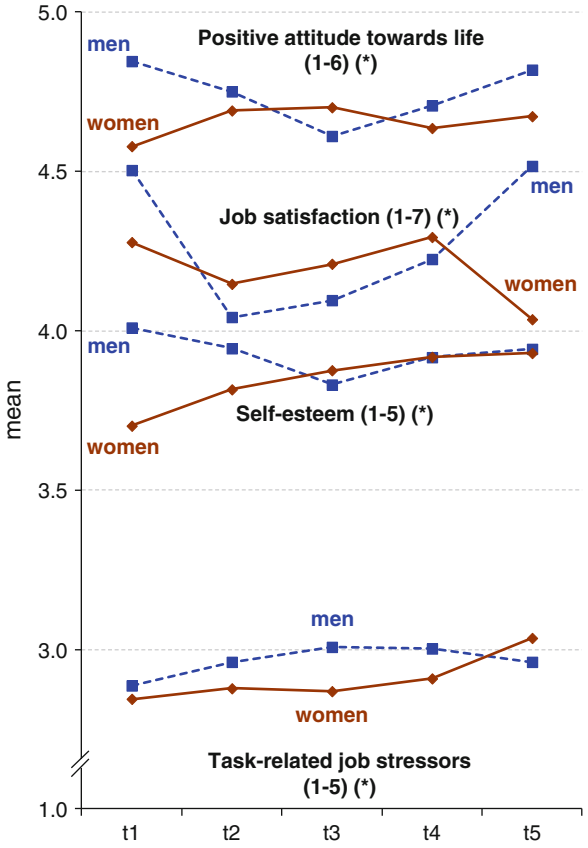

Fig. 8.7 Gender trajectory differences

well-being indicators also differed between the two regions in 2007: Young adults living in the French speaking area of Switzerland reported significantly lower mean levels in job satisfaction ($M_F = 4.16$, $SE_F = 0.15$ vs. $M_G = 4.55$, $SE_G = 0.13$, $F(1, 305) = 5.97$, $p < .05$), social support at work ($M_F = 3.49$, $SE_F = 0.11$ vs. $M_G = 3.83$, $SE_G = 0.09$, $F(1, 296) = 3.87$, $p \leq .05$), positive attitude towards life ($M_F = 4.56$, $SE_F = 0.10$ vs. $M_G = 4.89$, $SE_G = 0.09$, $F(1, 323) = 5.47$, $p < .05$), and self-efficacy ($M_F = 4.20$, $SE_F = 0.08$ vs. $M_G = 4.46$, $SE_G = 0.07$, $F(1, 323) = 5.45$, $p < .05$). Furthermore, French speaking participants reported higher levels in resigned attitude towards one's job ($M_F = 3.42$, $SE_F = 0.16$ vs. $M_G = 2.37$, $SE_G = 0.14$, $F(1, 306) = 18.91$, $p < .001$) and depressive mood ($M_F = 2.11$, $SE_F = 0.10$ vs. $M_G = 1.75$, $SE_G = 0.09$, $F(1, 323) = 3.90$, $p < .05$).

Concerning task-related job stressors, participants living in the German speaking part of Switzerland remained more or less stable, with the lowest value reported in wave 3. People living in the French speaking part of Switzerland reported initially lower levels of task-related job stressors. Over 10 years, these increased steadily

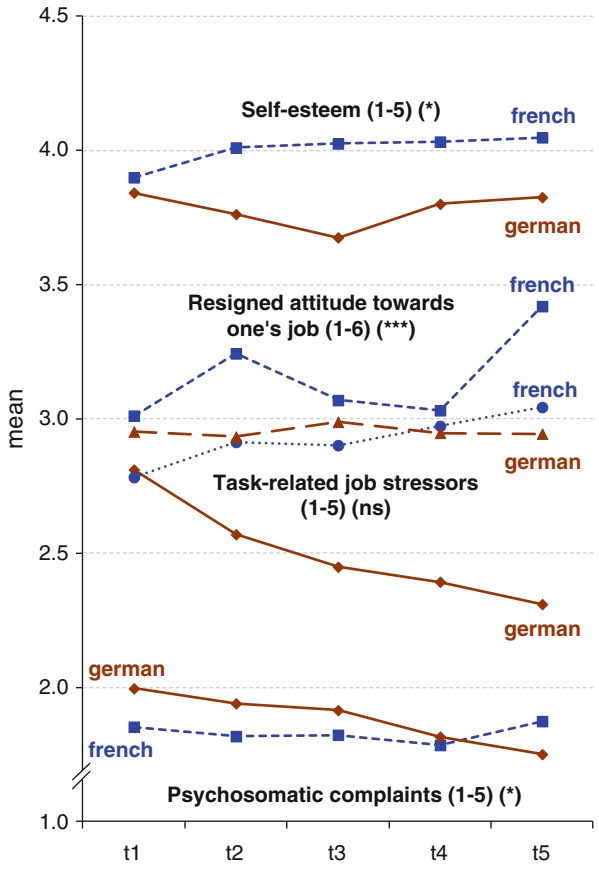

Fig. 8.8 Language trajectory differences

($F(1, 302) = 5.56$, $p < .05$), resulting in almost equal levels of task-related job stressors in 2007 for the German and French speaking part of Switzerland ($F(1, 299) = 0.74$, $p = .39$) (cf. Fig. 8.8).

While participants in the German speaking area of Switzerland decreased in their resigned attitude towards their job, participants in the French speaking part seemed to increase overall ($F(1, 304) = 6.72$, $p < .05$). For psychosomatic complaints trajectories seemed to resemble to each other; however, participants living in the French area of Switzerland overall reported lower levels as participants living in the German part of Switzerland ($F(1, 331) = 5.88$, $p < .05$); this trend was, however, reversed for wave 5. The only other well-being indicator that was more positive for the French-speaking participants was self-esteem (quadratic, $F(1, 331) = 5.89$, $p < .05$); starting at the same level than the German speaking participants, their self-esteem increased steadily, while people living in the German speaking part reported a u-shaped trajectory, with a turning point in wave 3, and ended up with about the same value as they had initially.

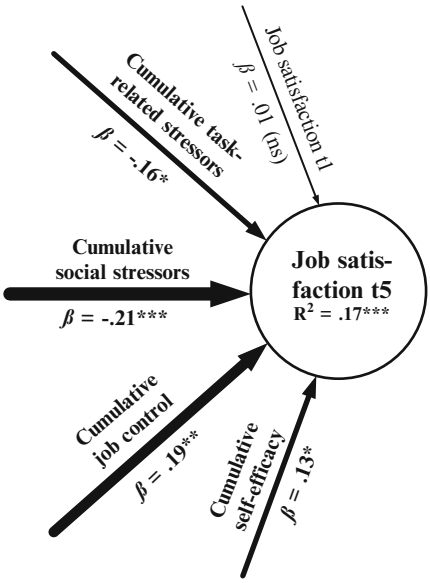

Fig. 8.9 Cumulative prediction of job satisfaction over time

8.3.6 Changes in Well-Being over Time

How far can well-being be predicted from work and personal characteristics over time? We will address this question in the following section. There is rather high agreement that work characteristics influence well-being not only cross-sectional but also longitudinally (e.g., Sonnentag and Frese 2013). Nevertheless there are not many results for young adults starting their work career. Therefore we tested the association between work as well as personal characteristics and well-being over the course of the 10 year period in a cumulative way. In Fig. 8.9 we present as one example the results for job satisfaction, combining the items on job satisfaction and on resigned attitude towards one's job (reversed) to a six-item total job satisfaction scale. Controlling for gender, language, and occupation, we regressed job satisfaction t5 on stressors, and resources. Each wave a participant was below / above the median of these variables. The sum of these values across waves then reflects the number of times a participant was above the median of the respective variable, with 0 indicating that he or she was not above the median at any measurement occasion, and a value of 5 implying that he or she was above the median on each measurement occasion, thus reflecting cumulative effects. This procedure was applied to task-related job stressors, social stressors, job control, and self-efficacy. As job satisfaction sometimes is regarded as a rather stable person characteristic (cf. Dormann and Zapf 2001; Elfering et al. 2000), we controlled for job satisfaction at t1 in order to rule out that job satisfaction was actually predicting these variables, rather than being predicted by them. Job satisfaction t1 was not able to predict job satisfaction 10 years later ($\beta = .01$; ns).

Cumulative social stressors had the highest influence ($\beta = -.21$; $p < .001$) on job satisfaction t5, followed by job control ($\beta = .19$; $p < .01$), task-related job stressors ($\beta = -.16$; $p < .05$) and self-efficacy ($\beta = .13$; $p < .05$). All associations were in the hypothesized direction.

First, job satisfaction t5 is not predicted by initial job satisfaction (which is also true for the bivariate correlation between job satisfaction t1 and t5). This indicates that the developments in participants' environment have influenced job satisfaction from the beginning of the "real work" until 10 years later (cf. Elfering et al. 2000).

Second, participants who report more social stressors and more task-related stressors over all waves seem to have lower job satisfaction at t5.

Third, not only stressors but also resources play an important role. The higher the cumulative values of job control and self-efficacy, the higher is job satisfaction at t5. This means that a good work setting in terms of job control as well as good personal resources (self-efficacy) improve job satisfaction, which in turn can lead to higher motivation and better performance (cf. Riketta 2008; Stajkovic and Luthans 1998). The analysis further shows that it is not a single factor that influences well-being but rather a combination of several factors. It is the work situation as well as personal components that are important, and both stressors as well as resources have to be considered.

8.4 Summary and Conclusions

Overall, working conditions seem to develop to the better. Resources at work increased or at least remained stable. Also, well-being, health, and personal resources developed in a positive manner: Inability to detach, depressive mood, and psychosomatic complaints decreased or remained stable, self-efficacy increased. Several trajectories had their turning point in wave 2 or 3, that is, during the first or second year after finishing VET and entering the labor market. These developments seem to reflect a process of successful professional socialization.

Task-related job stressors, however, did increase over these 10 years as well. It seems likely that employees gain responsibilities and have to master more tasks (which also may be more difficult) as they advance in their careers and in their professionalism; therefore concentration demands and time pressure increase as well. Nevertheless, this could only be one part of the explanation. Looking at task-related job stressors across the five occupations, we did find nurses to report decreasing task-related job stressors, while the remaining occupations showed an upward trend. This result is in line with other group differences reported in this chapter, which diminished over the first 10 years in labor market (e.g., social support or social stressors) implying a general trend towards convergence between groups.

This general positive picture is slightly different for subgroups: Thus, nurses reported rather high levels of task-related job stressors, while job control remained stable at a comparatively low level. This combination of high stressors and low

control raises concerns for well-being and health among nurses, and the increasing values in resigned attitudes towards work may reflect this situation – although nursing also contains many interesting and rewarding aspects, and nurses do not show lower levels of psychological health than the other occupations overall. For salespeople, rather low and decreasing levels of social support until wave 3 indicate difficult times; however, this changed dramatically to the better from wave 4 to 5: Social support, as well as job satisfaction and resigned attitude towards one's job returned to mean levels for salespeople and became similar to the other occupational groups. On the other hand, over the last 6 years, that is, between waves 4 and 5, cooks decreased in social support and job satisfaction and increased in resigned attitude towards one's job.

The finding that job satisfaction differed significantly between men and women, especially from wave 4 to 5 may reflect (upcoming) transitions into marriage and parenthood. Such transitions may make it more difficult for women to profit from potentially attractive aspects of their jobs, and to focus more strongly on organizational benefits such as flexible work hours, childcare services, and career perspective despite part-time work (cf. Keller et al. in press). On the other hand, men may continue to increase in their levels of job satisfaction as they may move into progressively attractive jobs (e.g., more responsibilities and task variety) (cf. Birdi et al. 1995).

Besides all these changes there are the well-known associations between the work setting, personal conditions and well-being – here shown in terms of the prediction of job satisfaction t5 by the cumulative values of stressors and resources. This implies that good working conditions and favorable personal resources contribute to better well-being. Therefore organizations who emphasize good job design promote the needs of the workforce which in turn can lead to higher job satisfaction, motivation, and better performance.

In 2005 we drew the conclusion that, overall, the transition into "real work" was quite successful for most of our participants, and we took this development to be an indicator of the positive role that vocational training according to the dual system plays for a smooth transition into a working career (cf. Elfering et al. 2007; Semmer et al. 2005b). Looking at the results obtained 6 years later, our conclusion seems to hold in general. It also has to be noted that a substantial percentage of our participants did not remain in their occupation. However, whereas such a change may indicate a failure for some people, our results indicate that it cannot be interpreted in terms of failing in general. Quite the contrary: The results for the group that changed occupation indicate that, on average, they profited from the change in terms of their well-being.

Thus, our results are in accordance with a development towards increased person-environment fit for most of our participants (cf. Semmer and Schallberger 1996; Swanson and Fouad 1999). Many of them managed to adapt to, or to shape, their occupational environment (Wrzesniewski and Dutton 2001) – or left it to find a better one if such a fit could not be achieved.

All in all, those for whom the transition into work was not successful seem to be a minority; however, this minority certainly deserves special attention, as it is

known that the minority of people with unfavorable developments may suffer personally and produce high costs to the economy and to society (cf. Sonnentag and Frese 2013). Nevertheless, a majority of young people in Switzerland seem to successfully make their way after finishing a vocational training.

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Chapter 9
The Meaning and Measurement of Well-Being as an Indicator of Success

Anita C. Keller, Norbert K. Semmer, Robin Samuel, and Manfred Max Bergman

9.1 Introduction

Theory and empirical research suggest that success in life makes people happy. For example, people with comfortable incomes report higher levels of life satisfaction, although the effect is strongest at lower levels of income and diminishes as income increases (cf. Diener and Biswas-Diener 2002). The same is true for the path from happiness to success (Boehm and Lyubomirsky 2008; Lyubomirsky et al. 2005). People with higher well-being tend to get jobs with favorable job characteristics, such as high autonomy (e.g., Furnham 1992; Garst et al. 2000). In turn, good quality jobs may foster well-being (e.g., Frey and Stutzer 2002; Humphrey et al. 2007). Taken together, this implies a reciprocal relationship between well-being and success. This chapter discusses well-being, success and their interplay from a long-term perspective. First, we describe differences and communalities of well-being and success. After presenting indicators of the three well-being components satisfaction, positive and negative affect, we provide an overview of indicators of success, i.e., work and career success. In the third part of the chapter, we discuss the relationship between success and well-being, focusing on work-related success.

A.C. Keller (✉)
Department of Psychology, University of Bern, Fabrikstrasse 8, 3012 Bern, Switzerland
e-mail: anita.keller@psy.unibe.ch

N.K. Semmer
Department of Psychology, University of Bern, Fabrikstrasse 8, 3012 Bern, Switzerland

Swiss National Center for Affective Sciences, Geneva, Switzerland
e-mail: norbert.semmer@psy.unibe.ch

R. Samuel • M.M. Bergman
Department of Social Sciences, University of Basel, Petersgraben 11, 4051 Basel, Switzerland
e-mail: robin.samuel@unibas.ch; max.bergman@unibas.ch

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9.2 Well-Being and Success: Differences and Communalities

Well-being and success are associated with feeling good (Diener et al. 1999; Mirvis and Hall 1994; Warr 2007). The concept of well-being, as described below, refers to affect in terms of experiencing positive affect with relatively high, and negative affect with relatively low frequency, and to evaluating one's life (or specific dimensions of it) in a positive way (satisfaction) (cf. Diener 2000). Success refers to achieving desirable positions or results that are highly esteemed and rewarding. From that perspective, success and well-being resemble each other. What, then, distinguishes them from one another? Success is associated with achievement and, thus, with results that are attributable to one's own actions (Locke 1990; Weiner et al. 1971). Success is attained through a combination of effort and competence in a given context that fosters or impedes this attainment. Whereas the experience of success may improve well-being (Lyubomirsky et al. 2005; Mühlethaler et al. 2013; Mühlethaler and Semmer 2013a, b), well-being may arise simply from favorable circumstances. One feels good because one has loving parents, lives in a stable environment, receives support and sponsorship, enjoys freedom and democracy, etc., all of which may be independent of own achievements (Inglehart et al. 2008). However, success also may benefit from favorable circumstances, such as being at the right place at the right time, knowing the right kind of people (Seibert et al. 2001), being physically attractive (Judge et al. 2009), or not being a member of a minority that is discriminated against (Heilman and Okimoto 2007). Yet the emphasis is on achievement when we talk about success, and a positive evaluation of one's life, when we talk about well-being.

9.3 Dimensions of Well-Being

A widely accepted variant of the well-being concept refers to the components of evaluation and affect (e.g., Diener et al. 1999). Although other conceptualizations of well-being have been suggested (e.g., Ryff 1995; Ryff and Singer 1998), in this chapter we focus on the three components, which have received consistent empirical support: satisfaction, positive affect, and negative affect (Arthaud-day et al. 2005; Diener 1984; Diener et al. 1999; Lucas et al. 1996; Schimmack 2008).

Following Warr (e.g., 2007), well-being can be understood as part of a broader concept of mental health, which includes features such as self-esteem, competence, autonomy, and aspiration. One can further distinguish between context-free well-being (e.g., life satisfaction), which covers well-being in general, and context-specific well-being (e.g., job satisfaction), which refers to specific life domains, such as work and family (Warr 2007). Our focus is on work-related well-being.

9.3.1 Satisfaction

Satisfaction refers to an evaluative judgment. As such, it has a strong cognitive component, and it can be characterized as an attitude (Weiss 2002). Satisfaction may refer to life as a whole, or to specific domains, such as work or relationships (Diener 1984; Diener et al. 1999). The relationship between specific forms of satisfaction and context-free satisfaction is considered to be reciprocal: for example, job satisfaction affects life satisfaction, and life satisfaction affects job satisfaction over time. However, the impact of life satisfaction on job satisfaction seems stronger (Judge and Locke 1993; Judge and Watanabe 1993; Schimmack 2008; Warr 1999).

Satisfaction, just as positive and negative affect, can only be conceptualized as an individual's subjective experience. At first sight, self-report measures seem appropriate for assessing satisfaction: Respondents provide judgments of satisfaction, which stem from a comparison of one's circumstances with what they believe to be an appropriate standard (Diener et al. 1985). The fact that satisfaction is a subjective phenomenon does not, however, imply that self-report is always a true reflection of this evaluation. People may, for instance, report to be more satisfied than they actually are because they suspect that their answers might be disclosed to their superiors, or because they believe that presenting themselves as satisfied is socially appropriate (social desirability) (e.g., Schwarz and Bohner 2001). Still, in such cases it is the subjective judgment that is not truthfully represented; the subjective judgment is, so to speak, the "objective" phenomenon intended to measure. Furthermore, people may misrepresent their satisfaction because they talk about a different phenomenon (cf. Diener and Diener 1996). For instance, they may be satisfied in a resigned way, believing they have to live with (and thus be "satisfied" with) suboptimal conditions because their true aspirations cannot be fulfilled. A women may declare herself "satisfied" because she accepts that she will not get the chances for advancement that a man with the same qualities would. As long as she does not really think that the state of affairs is as it should be, however, this would be a kind of "resigned" satisfaction (Bruggemann 1976). Thus, self-report is not problematic *per se*, that is because it represents subjective judgments; it is problematic only to the extent that it does not truthfully represent one's subjective judgment about how the current situation compares to his or her aspirations. Note that "resigned" satisfaction presupposes that the "real" standard or aspiration is still operating. If a person does truly lower his or her standards, then satisfaction with circumstances may result that have previously been judged unsatisfactory. Such a lowering of standards may have adaptive value, as when people have to recalibrate their aspirations as they get older (cf., selection, optimization, compensation model) (Baltes and Baltes 1990; cf. Semmer and Meier 2009).

Satisfaction being a subjective phenomenon does also not preclude that other people's (e.g., spouses, colleagues) reports of someone's satisfaction may be appropriate. People who know someone well often can assess that person's satisfaction quite accurately; still, however, their assessment is valid only to the extent that it mirrors the subjective experience of the focal person well.

An overall assessment of life satisfaction is the Satisfaction with Life Scale (SWLS; Diener et al. 1985). The scale consists of five items (e.g., "The conditions of my life are excellent"; "So far I have gotten the important things I want in life") and has demonstrated good reliability (Pavot and Diener 1993). It is a global assessment of satisfaction, while other instruments assess different domains of satisfaction. For instance, a job satisfaction instrument widely used in German-speaking countries asks questions such as "overall, I am satisfied with my work" (Baillod and Semmer 1994; Elfering et al. 2000). Within these domains, different facets may be distinguished, such as satisfaction with pay, promotion, coworkers, supervision, or work itself. Examples for such faceted measures of job satisfaction are the Job Descriptive Index (JDI; Smith et al. 1969) or the Minnesota Satisfaction Questionnaire (MSQ; Weiss et al. 1967). Although most multi-item scales demonstrate higher reliability scores, single item measures of job satisfaction showed reasonable reliability coefficients (Wanous et al. 1997), including the well-known faces scale (Kunin 1955).

9.3.2 Positive and Negative Affect

Positive and negative affect reflect the amount of pleasant and unpleasant feelings that people experience (Diener and Biswas-Diener 2002; Warr 2007; Watson et al. 1988). The literature often refers to "happy people," which relates to people who frequently experience positive emotions (Boehm and Lyubomirsky 2008). Sometimes the relation of positive to negative affect is calculated, with happiness representing a dominance of positive affect (hedonic balance, Larsen and Prizmic 2008). Positive and negative affect are sometimes assumed to be the opposite of each other. Bradburn (1969) was the first to state the (relative) independence of positive and negative affect. Usually there is a strong negative correlation between negative and positive affect only when they are measured with regard to a specific point in time (Diener 1984). When measured referring to longer time spans, however, there often is only a weak (negative) correlation between positive and negative affect, both cross-sectionally and longitudinally. Furthermore, the two relate to different outcomes: While positive affect predicts e.g., social activity (and negative affect does not), negative affect predicts negative outcomes such as anxiety (and positive affect does not) (Carver and Scheier 1990; Clark and Watson 1988; Diener and Emmons 1985; Diener and Iran-Nejad 1986; Taylor 1991; Watson et al. 1988).

Like satisfaction, positive and negative affect reflect subjective experiences, and the considerations we advanced with regard to the measurement of satisfaction apply to negative and positive affect as well.

One of the most popular instruments to measure positive and negative affect is the Positive and Negative Affect Schedule (PANAS; Watson et al. 1988) and its extended version, the PANAS-X (Watson and Clark 1994). The PANAS scale consists of 20 adjectives, 10 to assess positive affect (e.g., inspired, interested) and

10 to assess negative affect (e.g., afraid, upset). Diener and Emmons (1985) developed a set of adjectives based on affective circumplex (Russell 1980). Respondents indicate the extent to which they experienced pleasant (e.g., joy, delighted) and unpleasant (e.g., angry, sad) affect over a specified time period. Both scales, PANAS and the scale by Diener and Emmons (1985), allow adjusting the time frame of the assessment from current affective states to experiences during a day, week, or year.

Just as there are measures for assessing work-related satisfaction (e.g., job satisfaction, career satisfaction, etc.), there are measures of work-related well-being (Spector and Jex 1998; Van Katwyk et al. 2000; Warr 1990, 2007). For example, the Job-related Affective Well-being Scale (JAWS) includes a variety of positive and negative emotional experiences at work (e.g., my job made me feel bored, my job made me feel angry, etc.) (Van Katwyk et al. 2000). The scales developed by Peter Warr assess job-related depression, enthusiasm, anxiety, and contentment. Similar to JASW, participants rate a list of emotions according to the experienced frequency over a given time period (e.g., over the last month) (Warr 1990).

9.4 Dimensions of Success

From a sociological perspective, success may be understood as having attained positions in society that are more desirable than others in relation to what Grusky and Ku (2008) describe as reward packages. These reward packages could, for example, contain prestige (Treiman 1997) or high pay, and they allow for a privileged lifestyle (Bourdieu 1979; DiMaggio 2008). From a psychological perspective, success refers to attaining certain goals. Attaining a goal that is personally meaningful and challenging may be understood as subjective success (Lewin 1936; Locke 1990; Mirvis and Hall 1994). Such goals may refer to desired life outcomes such as good health (Koivumaa-Honkanen et al. 2001), marriage (Mastekaasa 1994), and an income that allows for a desired lifestyle (Diener and Biswas-Diener 2002; Frey and Stutzer 2002; Judge and Hurst 2008). These characteristics and resources tend to be valued by society and correlate with being happy (Diener et al. 1999). However, subjective success may also be related to goals that are more independent of typical criteria for success in society, as when one rejects a promotion at work for the sake of having a good work-family balance, and feels successful once that goal is attained.

9.4.1 Success in Terms of Overall Integrative Judgments: Career Success

Career success is typically defined as the work-related outcomes and accumulated achievements as a result of one's work experiences (Hughes 1958; Judge et al. 1995;

Seibert and Kraimer 2001). A career develops over time, and thus not only one's status relative to others at one point is relevant, but also how far, and how quickly one has moved in a given time, and how that movement compares to expectations. Therefore, not only positions and mean levels are relevant for career success, but also, and perhaps even more, pace and form of change (Arthur et al. 1989; Judge and Hurst 2008; Michalos 1985). In organizational research it is common to distinguish between extrinsic or objective and intrinsic or subjective career outcomes. Objective career success refers to directly observable outcomes, such as salary, promotions, and status, while subjective career success refers to subjective feelings of accomplishment and satisfaction (Abele 2014; Ng et al. 2005).

More studies deal with objective than subjective indicators of career success. The most commonly used objective indicator of career success is salary (e.g., Judge 2009; Judge and Cable 2004; Kammeyer-Mueller et al. 2008; Seibert et al. 2001). Objective indicators are criticized for several reasons; for instance, in some jobs, salary can barely be negotiated (e.g., state employment), and different employers may remunerate the same occupational performance differently (Abele et al. 2011). Similar arguments apply to other objective criteria, such as promotions and status; when pay and promotions are institutionalized, such criteria may not adequately reflect career success (e.g., Thorndike 1963). For several reasons, scholars often argue that status, promotions, and income are becoming less relevant and personal fulfillment is becoming more relevant to career success (Arthur et al. 2005; Hall 2002). For example, hierarchies in organizations have flattened (Littler et al. 2003), and today's workers tend to change employers several times over the course of their career (Arthur and Rousseau 1996; Briscoe and Hall 2006; Hall 2002).

Empirical research is inconsistent about the relationship between subjective and objective career success: some authors argue that objective success affects subjective career success (e.g., Judge et al. 1995). A reversed relationship is also possible: Subjective success may foster motivation, which may lead to more objective success (Abele et al. 2011; Boehm and Lyubomirsky 2008; Hall and Chandler 2005). Thus, it is plausible that the two are interdependent (e.g., Seibert et al. 2001). However, the meta-analytic mean correlation between objective and subjective indicators of career success is only $r = .28$ (Abele 2014; Dette et al. 2004).

Subjective career success is influenced by aspirations and values (Arthur et al. 2005), social comparisons with relevant others (Festinger 1954; Wills 1981; Wilson and Benner 1971), and situational constraints, such as opportunities for advancement in a profession (Arthur et al. 2005). Subjective career success is often measured by a scale developed by Greenhaus and colleagues (1990). Containing five items, their career satisfaction scale asks individuals about satisfaction with their current career position in terms of skills, position, goals for income, advancement, and overall career goals (e.g., "I am satisfied with the progress I have made towards meeting my goals for the development of new skills"). Such standardized measures are criticized because they do not account for the individual construction and meaning of career success (Abele et al. 2011; Arthur et al. 2005; Dries et al. 2008).

An alternative approach considers an individual's construction of success. Such subjective constructions may be dynamic, change over time, and differ between career stages (Abele et al. 2011; Dries et al. 2008).

In sum, indicators of career success are often used but also criticized for several reasons: objective indicators may mean different things in different environments, and because their individual relevance is unknown. This is especially challenging because today's employees place more emphasis on psychological fulfillment than earlier generations. Consequently, some authors extend the concept of career success to include other dimensions, such as influence, recognition, competence, responsibility, or continuous learning (Dries et al. 2008; Dyke and Murphy 2006; Nabi 2001; Sturges 1999). Such extensions put more emphasis on subjective evaluations of one's success.

9.4.2 Success in Terms of Specific Episodes: Accomplishments and Their Acknowledgement

Career success involves an overall summary judgment referring to cumulative achievements over the course of one's professional life. However, it is difficult to imagine that this type of summary judgment typically represents what people are occupied with when they think about their work. Rather, people often attend to events on a much smaller scale, including successes (and failures) that may not relate to their career as a whole but to more circumscribed achievements, such as successfully finishing a project, managing a merger, obtaining a contract, satisfying a client, solving a problem, or settling a conflict (cf. Basch and Fisher 2000). Success in this sense refers not only to evaluations of one's current standing but also focuses on experiences that are limited in time, although the time frame may vary widely and range from very short periods (calming down an angry customer; preventing a machine breakdown) to rather long periods (developing a new product, having survived in a new market for 10 years without a loss). What distinguishes this type of success is its episodic character: It refers to events (cf. Affective events theory; Weiss and Cropanzano 1996). Such events may cover small, daily experiences of achievements and positive experiences resulting from them; their decisive feature is that they represent attaining a goal. Such goals may be set in advance ("Today, I want to finish that report"; "I want to fix that car by Friday"), but many goals may not have been explicitly set in advance but are set as opportunities arise (e.g., having a spontaneous idea about how to accommodate a client's preference), or as necessities arise (e.g., an unforeseen new task assignment). Also, general goals may operate as background standards, and may be activated when an opportunity arises, as when solving an unexpected problem contributes to one's (self-)image as a competent person (cf. Mühlethaler et al. 2013).

The accomplishments that are experienced as success may relate to task-related achievements (doing good work), but also to social achievements (e.g., settling a

conflict). Outstanding achievements, as well as small but frequent achievements, may then result in others acknowledging them, by giving positive feedback, or by career-related decisions such as bonuses or a promotion. Based on such considerations, Grebner et al. (2010) present a model (the SUCCESS) model that distinguishes task-related accomplishments, pro-social success, and their acknowledgment in terms of positive feedback and career-related events.

In sum, career success represents only a part of what may be experienced as success. Referring to one's overall achievements in terms of a summary evaluation over time, it misses success that has a much more circumscribed, episodic character. Such success episodes refer to task-related and social achievements, and their consequences in terms of feedback and career-related decisions (Grebner et al. 2010). Some authors have suggested to extend the concept of career success in this direction. Thus, Heslin (2005) proposed to refine career success indicators using criteria that are more relevant and meaningful to an individual in a given context, such as having a low patient infection rate after surgeries for surgeons or having several years without an accident for bus drivers (see also Abele et al. 2011; Arthur et al. 2005; Dries et al. 2008). We feel that these suggestions are important and valuable; however, we argue that the concept of career success is not sufficient; it should be complemented (not simply enlarged) by an episodic view of success experiences (Grebner et al. 2010).

9.4.3 Conditions at Work That Foster Success

To a considerable degree, success at work depends on people's effort and ability (Sonnentag 2003). However, conditions at work also determine to what degree people will be motivated to invest effort that may result in success, but also to what degree effort will translate into good performance, and the success resulting from it (cf. Grebner et al. 2010).

The nature of one's tasks constitutes an important factor that influences the chances for success. Variables such as skill variety, task identity, or task significance, as specified by the well-known Job Characteristics Model (Hackman and Oldham 1980), are among the factors postulated to enhance motivation, satisfaction, and performance. They are classified as being part of the motivational facets of job design (Morgeson et al. 2013; Morgeson and Humphrey 2006). Stressors, such as too high demands, role ambiguity and role conflict, or performance constraints are factors that make goal attainment more difficult (Sonnentag and Frese 2013), although attaining goals in spite of many barriers may be an especially self-enhancing indicator of success; this is reflected in the Challenge-Stressors Hindrance-Stressors framework (LePine et al. 2005; Podsakoff et al. 2007). It points to challenge-stressors as double-edged sword, as they may foster well-being (most notably self-esteem) but simultaneously induce symptoms of stress (Widmer et al. 2012). Finally, resources, such as autonomy and social support,

but also fairness and appreciation are likely to increase chances of success (Hobfoll and Shirom 2001). There are various models that specify demands and resources that enable, or hinder, employees to successfully perform in their jobs. Among the most popular are Karasek's (1979) Job Demand Control Model and its extension, the Job Demands Resources model that includes a large number of other resources as well (e.g., feedback, participation) (Bakker and Demerouti 2007; Demerouti et al. 2001); and Siegrist's Effort-Reward Imbalance Model (ERI; 2002), which specifies rewards from work (e.g., job security, recognition, salary), which can induce the experience of success.

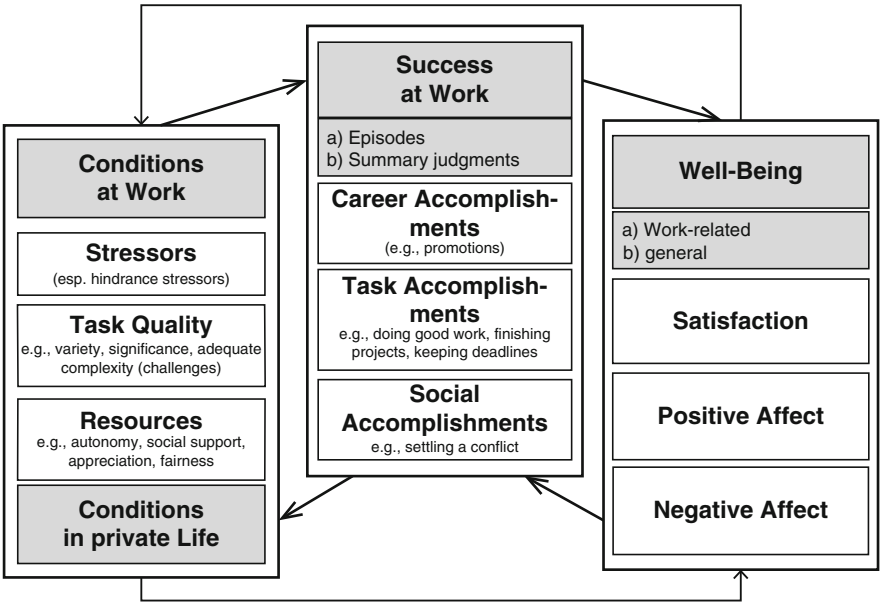
However, favorable working conditions not only enable people to perform successfully. Attaining them may in itself be an important indicator of work success, and so may the experience of favorable changes in these job features (cf. Hall and Las Heras 2010). For example, employees may experience an increase in autonomy (Fried et al. 2007; Keller and Semmer 2013; Semmer et al. 2005), which refers to their possibilities to make decisions about their activities and the conditions under which they are to be performed. Autonomy may facilitate the experience of success by facilitating good performance, as when employees can perform activities that require high concentration at times where they feel most fit and expect the least interruptions. Autonomy also signals trust in one's competence and abilities (Pierce and Gardner 2004; Semmer and Beehr 2014; Spector 2009), and being regarded as trustworthy and competent is likely to be seen as a sign of success, which may be one of the reasons why autonomy is consistently associated with well-being (cf. Berset et al. 2009; De Lange et al. 2003; Semmer 2000; Spector 1986; Terry and Jimmieson 1999). To the extent that modern working life and careers emphasize personal fulfillment (e.g. Hall 2002), these criteria for success may become increasingly important in comparison to "classic" indicators of success, such as income or status.

9.4.4 Having Work as a Precondition for Success

Obviously, having a job is a precondition for experiencing occupational success. Jahoda (1981) has emphasized the "latent" functions of employment. Employment provides a time structure, collective purpose, social contacts, status, and activity, all of which may foster the chances of establishing oneself as a useful member of society, and thus the experience of success. Many of these functions can, in principle, be achieved through other means (e.g., meaningful leisure activities; cf. Waters and Moore 2002), but for many work plays a rather central role; therefore, achieving these functions is much more difficult for unemployed people (Waters and Moore 2002). Moreover, unemployed people are frequently stigmatized as they are regarded as lazy and unmotivated, and unemployment is in itself associated with failure (Truniger 1991).

9.5 Relations Between Well-Being and Success

The majority of research on success and well-being emphasizes that success improves well-being, whereas a lack of success is associated with disappointment, and impaired well-being and health (Abele et al. 2011; Boehm and Lyubomirsky 2008; Hall and Chandler 2005). In a broader perspective, Diener and associates have investigated the role of success in terms of desirable life outcomes, such as having a comfortable income, good mental health, and being in a satisfactory relationship for making people happy (e.g., Diener and Biswas-Diener 2002; Lyubomirsky et al. 2005). They also have emphasized the reverse process, that is, being a happy person as a predictor of success (Lyubomirsky et al. 2005). In this section, we will present the role of work in relation to well-being and success, and the reciprocal relationship between the two (Fig. 1; cf. Grebner et al. 2010).



9.5.1 *Classic Indicators of Success: Career Success and Well-Being*

One of the most frequently investigated criterion of success is income; this research consistently reveals a positive relationship between well-being and income such that well-being is higher if income is higher (Diener and Biswas-Diener 2002; Frey and Stutzer 2002; Pinquart and Sörensen 2000). However, this association is

non-linear: The higher the income, the less relevant income becomes for well-being (Frey and Stutzer 2002). Also, on a country level, higher income does not contribute substantially to high well-being in countries that are economically in a good condition (Diener and Biswas-Diener 2002; Easterlin 1974; Easterlin et al. 2010). This small contribution of income among those who are economically better off may partly be explained by changing standards. Achieving high levels of income may not lead to an improvement in well-being if the income achieved falls below one's own aspirations (Graham and Pettinato 2006), and these are likely to change over time (Spurk et al. 2011). Also, well-being may be less affected by material factors, compared to belief systems and political institutions once a certain material standard is attained (Inglehart et al. 2008). Especially at higher levels of income, expectations and social comparison seem to moderate the relationship between income and well-being (Diener and Biswas-Diener 2002; Frey and Stutzer 2002). A comprehensive overview on the relationship of career success and well-being is provided by Abele (2014).

9.5.2 Broader Indicators of Success and Well-Being

Task accomplishments. Work is, by definition, associated with performance, which implies producing something according to given standards. The term "product" is very broad and entails not only physical products but also delivering service, producing ideas, or showing a performance that only exists momentarily (e.g., music, dancing, giving a presentation) (cf. Hacker 2003; Motowidlo and Kell 2013; Sonnentag 2003). Success in achieving the standards involved should, therefore, be an important element of many people's well-being at work, and it is not surprising that task accomplishments constitute an important part of situations that induce positive emotions at work, as shown by Basch and Fisher (2000): Together, "goal achievement" and "goal progress" constitute about a third of all event categories that are associated with positive emotions. From that perspective, one would expect that task-related achievements and their associations with well-being should be a prominent topic in research on success at work; however, research in this area is rather sparse (cf. Grebner et al. 2010). Goal setting theory (e.g., Latham et al. 2002) postulates satisfaction as a central element of the high performance cycle. Furthermore, some research on goal achievement has focused on work-related goals, typically showing that goal attainment is associated with better well-being (Austin and Vancouver 1996; Carver and Scheier 1990, 2002; Gabriel et al. 2011; Kruglanski et al. 2002; Sheldon and Elliot 1999), although some studies find that this effect occurs only under special conditions, such as self-concordance of goals (Sheldon et al. 2002) or difficult goals (Wiese and Freund 2005). The Bern research group has conducted several studies on task-related success; they show that daily achievements reported at the end of work are associated (a) with positive affect in the evening and higher state job satisfaction next morning (Mühlethaler and Semmer 2013a), and (b) with serenity in the evening and sleep quality reported

next morning (Mühlethaler et al. 2013). On an inter-individual basis, task-related success predicted positive affect over a period of 2 months (Mühlethaler and Semmer 2013b). Thus, task accomplishments are a promising candidate for investigating success experiences at work, both on theoretical grounds and based on the little empirical research that exists. However, further research is necessary in this domain, and this includes success evaluations in terms of accomplishments over years, or a lifetime.

Prosocial success refers to helping others to succeed, boosting others' confidence, giving advice to others, or motivating others (see Grebner et al. 2010). There is indirect evidence showing that supporting others can be beneficial for well-being (Deci et al. 2006; Liang et al. 2001; Piferi and Lawler 2006). For example, Sonnentag and Grant (2012) showed in a study with firefighters that helping others at work was followed by positive affect in the evening, even though not immediately after work. However, this research has not been carried out in the work domain, and it remains unclear if it is associated with the experience of success. The sparse literature on this issue does, however, make it a promising candidate for further research.

Feedback and Appreciation. Feedback and appreciation often are a result of good performance, both in terms of task performance and extra-role performance, which includes pro-social behavior. Like career success, therefore, positive feedback can be regarded as a consequence of successful behavior; positive feedback therefore signals a recognition of success by the organization. Although feedback may undoubtedly have negative consequences (Kluger and DeNisi 1996), the role of positive feedback and appreciation for well-being is not likely to be disputed. Some authors use aspects of appreciation and feedback even as a measure of work-related well-being, as do Pierce et al. (1989) in their measure on organization-based self-esteem (cf. Pierce and Gardner 2004). Appreciation has been shown to be associated with job satisfaction and well-being (Stocker et al. 2010), and recently the amount of positive feedback generally received at work has been shown to be related to an increase in vigor across a working week (Gross et al. 2013).

Working conditions. Job stressors, job resources, and adequate demands in terms of variety, complexity, etc. have repeatedly been shown to be associated with psychological well-being and physical health. For example, a meta-analysis concluded that 55 % of the variance in job satisfaction was a function of 14 work characteristics. These characteristics include autonomy, variety, significance, social support, and physical demands (Humphrey et al. 2007; Morgeson et al. 2013). As the current chapter is not a chapter on occupational health psychology, we will not go into detail here but refer to the pertinent literature in occupational health psychology (e.g., Bakker and Demerouti 2007; Barling et al. 2004; Semmer and Beehr 2013; Sonnentag and Frese 2013). Whereas the association between working conditions and well-being is overall quite well established, it is less clear if this relationship is associated with experiencing *success,* as a number of authors have suggested (see above); alternatively, they might simply be conditions that foster, or impair, health and well-being, and the experience of success might not be an important part of it. However, as a number of authors have suggested, good working

conditions may be seen as a sign of advancement, trust by supervisors, etc., and in that sense be signals of success (Keller and Semmer 2013; Pierce and Gardner 2004; Semmer and Beehr 2013; Spector 2009).

Having a job. The association between being employed and well-being and health is well established. Meta-analyses found that in comparison with employed persons, the unemployed reported lower mental health, life satisfaction, marital or family satisfaction, and subjective physical health (McKee-Ryan et al. 2005; Paul and Moser 2009). A significant reduction after job loss was also found longitudinally for mental health (McKee-Ryan et al. 2005; Paul and Moser 2009) and life satisfaction (Carroll 2007; Winkelmann and Winkelmann 1998). As argued above, especially *not* having a job often is associated with failure, both in terms of self-deprecation and in terms of social stigma.

Indicators of success: Level versus change. We already mentioned that the criteria for success may change over time (cf. Fried et al. 2007; Nicholson 2010; Semmer et al. 2005). For example, employees at early career stages may accept less challenging and complex work because they may expect their jobs to become more challenging and complex with time. Older employees at later career stages may seek less challenging work and focus more on their legacy (Fried et al. 2007; Verhofstadt et al. 2009). Unfavorable conditions may be accepted because an employee interprets them as a necessary intermediate step in his or her career. What is crucial, then, may not be the initial level but the experience of advancement. For example increases in autonomy which fall below one's expectations, may result in lower levels of job satisfaction (Fried et al. 2007; Keller and Semmer 2013; Nicholson 2010; Siegrist 2001). More specifically, Keller and Semmer (2013) showed that autonomy that remained stable over time, rather than increased, was associated with a drop in job satisfaction over time. Such findings suggest that specific attributes of one's job – not only salary or status – are evaluated in comparison to what one believes to "deserve" given his or her experience and career advancement.

9.5.3 Well-Being as a Predictor of Success

So far, we have emphasized the importance of success-indicators for well-being and health. However, there are sizeable inter-individual differences between people, and research on selection has clearly shown that such inter-individual differences influence what type of work people chose, what type of jobs they are hired for, how they perform, and how successful they are (e.g., Motowidlo and Kell 2013).

Healthy and happy people often get better quality jobs (Furnham 1992; Garst et al. 2000; Mortimer et al. 2002; Zapf et al. 1996), attain higher income levels (Diener et al. 2002), receive more autonomy, variety, and social support (Staw et al. 1994), and perform better at their work (Wright and Cropanzano 2000). Especially job resources such as autonomy and social support enable employees to cope with challenging tasks and to master them. Success at work may lead to even more assigned responsibilities, autonomy, and other benefits (e.g., Hobfoll et al. 2003).

Some studies report well-being to function as a facilitator when applying for a job: People with higher levels of positive affect seem to have a higher chance at getting a second job interview when applying for a new position (Burger and Caldwell 2000); self-esteem in university students predicts the likelihood of unemployment 10 years later (Salmela-Aro and Nurmi 2007), and self-efficacy predicts successful school-to-work transitions, meaning that people with higher levels of self-efficacy were less likely unemployed (Pinquart et al. 2003). Well-being was also found to increase the likelihood of educational and occupational success (status attainment; Samuel et al. 2013). Furthermore, happy people are more likely to remain in their jobs (Pelled and Xin 1999) and if they decide to change the employer, they find a new job more quickly (Marks and Fleming 1999).

Personal resources, such as self-esteem, may also have played an essential role during the selection processes (Hough and Oswald 2000), they motivate and support pursuing a goal and attainment of work success (Judge et al. 2005; Kammeyer-Mueller et al. 2008), and they can moderate effects of job characteristics on well-being (Meier et al. 2008). People high in personal resources tend to be better performers and hold more challenging jobs, which allows for more frequent experiences of success (Judge 2009; Judge et al. 2002; Judge and Hurst 2008).

9.6 Concluding Remarks

Occupational success is often conceptualized as career success, assessed by objective and subjective components (Hughes 1958). This conceptualization has been criticized for being inappropriate for the current labor market (Littler et al. 2003) and of limited use for a variety of occupations (Abele et al. 2011; Arthur and Rousseau 1996; Briscoe and Hall 2006; Thorndike 1963). In this chapter, we go a step further and suggest that occupational success should be conceptualized in broader terms, including task performance, pro-social success, and appreciation/feedback. Furthermore, we suggest that good working conditions are not only associated with well-being directly but also constitute signals of success.

Apart from arguing for a broader conceptualization of occupational success, we suggest that success is more than an evaluation of one's standing in terms of social comparison and career development (cf. Heslin 2005). Rather, this conceptualization of success as an overall summarizing evaluation should be complemented with an approach to success that focuses on the experience of success episodes (Grebner et al. 2010), thus also capturing daily success experiences (cf. the affective events theory; Weiss and Cropanzano 1996).

Success as episodes and success as a global evaluation have been shown to be related to well-being and health, and there are good reasons to assume that the relation is bi-directional – success fosters well-being and well-being fosters success. Under favorable conditions, "gain spirals" may result (cf. Hobfoll et al. 2003). We might even think of well-being as an indicator for success, with general well-being indicating success in life (including work) and work-related well-being (Warr 2007) indicating occupational success.

However, it may be important to broaden the view not only with regard to success but also with regard to well-being. In this chapter we focused on hedonic well-being. However, we also want to emphasize eudaimonic well-being, a concept stressing that well-being consists of more than happiness. Eudaimonic well-being refers to realizing one's true self (Ryan and Deci 2001; Ryff and Singer 1998), a conceptualization that may go well with the recent emphasis on striving for personal fulfillment as an indicator of career success (Hall 2002; Heslin 2005), as well as with the emphasis of many approaches to job design on challenge and meaning as important elements of high quality work (cf. Keller et al. in press). Hedonic and eudaimonic well-being are not independent of each other (Keyes et al. 2002; Ryan and Deci 2001), and many things that foster one also foster the other. However, the emphasis of eudaimonic well-being on self-realization and meaning (or purpose) represents an important complement to hedonic well-being and should receive more attention when considering indicators of (occupational) success.

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