

Université de Lausanne – Faculté des Sciences Sociales et Politiques

The Corrosion of Career?

Occupational Trajectories of Engineers and Business Economists in Switzerland

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Table

ACKNOWLEDGMENTS	11
1. INTRODUCTION: ACHIEVEMENT CAREERS IN SWITZERLAND.....	13
1.1 MODERNITY AND INSTITUTIONALISATION OF BIOGRAPHY	13
1.2 ACHIEVEMENT CAREER AS A MODAL TRAJECTORY	15
1.3 A POLITICAL READING OF ACHIEVEMENT CAREER.....	16
1.4 THE END OF THE “30 GLORIEUSES”	17
1.5 THE CORROSION OF CAREER.....	19
1.6 STRUCTURE.....	20
2. A HEURISTIC MODEL OF ACHIEVEMENT CAREER.....	25
2.1 INTRODUCTION.....	25
2.2 THE THEORETICAL ANCHOR	26
2.3 ACHIEVEMENT CAREER AS INSTITUTION.....	28
2.4 TRAJECTORIES.....	30
<i>Trajectories, Careers, and Achievement Careers.....</i>	<i>30</i>
<i>Objective and Subjective Careers.....</i>	<i>31</i>
<i>Characteristics of the Objective Achievement Career.....</i>	<i>31</i>
<i>The Characteristics of the Subjective Achievement Career.....</i>	<i>34</i>
2.5 SOCIAL STRUCTURES	36
<i>Large-Scale Bureaucratic Organisations.....</i>	<i>37</i>
<i>The Bourgeois Family Model</i>	<i>40</i>
<i>The Conceptualisation of Structures</i>	<i>43</i>
2.6 INDIVIDUAL REPRESENTATIONS	44
<i>Biographical Representations</i>	<i>45</i>
<i>Dimensions of Achievement Career Representations</i>	<i>48</i>
2.7 CONCLUSION	50
3. RESEARCH QUESTIONS	53
3.1 INTRODUCTION.....	53
3.2 PRESUMED CHANGES IN THE EMPLOYMENT SYSTEM	54
<i>Contraction of the Promotional Space</i>	<i>54</i>
<i>De-categorisation of Work</i>	<i>55</i>
<i>Re-definition of Promotional Criteria</i>	<i>55</i>
<i>Decline of Large-scale Firms.....</i>	<i>56</i>
<i>New Recruiting and Dismissal Policies.....</i>	<i>57</i>
3.3 EROSION OF THE BOURGEOIS FAMILY MODEL	58
3.4 SUPPOSED CONSEQUENCES FOR THE ACHIEVEMENT CAREER	60
3.5 RESEARCH QUESTIONS.....	63
4. RESEARCH STRATEGIES AND METHODS	67
4.1 INTRODUCTION.....	67
4.2 STRATEGIES FOR TACKLING CAREERS EMPIRICALLY	67
<i>The Individual Approach to Social Mobility.....</i>	<i>68</i>
<i>Neo-structural Critiques: Class, Labour Market, and Organisation</i>	<i>70</i>
<i>Careers as a Legacy of the Chicago School of Sociology.....</i>	<i>72</i>
4.3 METHODOLOGICAL ADVANCES.....	76
<i>Sequential Analysis of Careers.....</i>	<i>76</i>
<i>Integration of Qualitative and Quantitative Methods.....</i>	<i>81</i>
4.4 HOW TO ANALYSE ACHIEVEMENT CAREERS IN SWITZERLAND?	83
<i>Research Strategies: The Wish to Make Career as Sampling Criterion.....</i>	<i>83</i>
<i>HOS Engineers and Business Economists in Historical Perspective</i>	<i>86</i>
<i>Are HOS Engineers and Business Economists Social Climbers?.....</i>	<i>89</i>
4.5 DATA SOURCES	95
<i>Analysis of Census and Survey Data</i>	<i>95</i>
<i>The FH Schweiz Survey and Optimal Matching Analysis</i>	<i>97</i>
<i>Biographical Interviews</i>	<i>103</i>

5. ECONOMIC AND SOCIAL STRUCTURES 1970–2005	115
5.1 INTRODUCTION.....	115
5.2 STRUCTURAL MACRODYNAMICS.....	115
5.3 CONSEQUENCES ON THE ORGANISATIONAL LEVEL.....	117
<i>Shortening of Career Ladders</i>	117
<i>Decategorisation of Work and New Promotional Criteria</i>	118
<i>Decline of Traditional Forms of Large Firms</i>	120
<i>New Recruiting and Dismissal Policies</i>	121
5.4 OPPORTUNITY STRUCTURES FOR ENGINEERS AND BUSINESS ECONOMISTS	122
<i>Demographic Evolution of Engineers and Business Economists</i>	123
<i>Deindustrialisation and Upswing of Business Service</i>	125
<i>Unemployment?</i>	127
<i>New Forms of Labour Contracts?</i>	129
<i>Changing Opportunity Structures?</i>	130
5.5 THE TRANSFORMATION OF THE FAMILY SITUATION	132
<i>Macrosocial Changes of the Family Structure</i>	132
<i>Occupational Investment of Engineers and Business Economists</i>	133
<i>Career and the Choice of Partner</i>	134
<i>Potentially Increasing conflicts between Career and Family</i>	142
<i>Family Trajectories</i>	144
5.6 CONCLUSION	151
6. OBJECTIVE CAREERS OF ENGINEERS AND BUSINESS ECONOMISTS	153
6.1 INTRODUCTION.....	153
6.2 GENERAL CHARACTERISTICS OF ACHIEVEMENT CAREERS	154
<i>Orderliness</i>	154
<i>Loyalty</i>	155
<i>Temporal Rhythm and Success</i>	156
6.3 CAREER VARIETY	157
<i>Dimensions of Analysis</i>	158
<i>Attribution of Costs</i>	159
<i>Separate or Joint Examination of Engineers and Business Economists?</i>	160
<i>Types of Achievement Careers</i>	163
6.4 DIGRESSION: A CLOSER LOOK AT SHORTENED TRAJECTORIES	179
<i>Four Types of Shortened Achievement Careers</i>	181
6.5 ORDERLINESS, LOYALTY AND RHYTHM WITH RESPECT TO CAREER-TYPES	182
<i>The Full-Length Typology</i>	183
<i>The Shortened Typology</i>	184
6.6 ORDERLINESS, LOYALTY AND RHYTHM WITH RESPECT TO COHORTS.....	186
<i>The Full-Length Typology</i>	189
<i>The Shortened Typology</i>	191
<i>The Association between Types and Cohorts</i>	192
6.7 ASSOCIATIONS BETWEEN OCCUPATIONAL AND FAMILIAL TRAJECTORIES	194
<i>Correspondence Analysis of the Association between Family Types and Career Types</i>	195
<i>Contingency table measuring the strength of the association</i>	196
6.8 CONCLUSIONS	198
<i>Career Types</i>	199
<i>Cohorts</i>	200
<i>Career and Family</i>	201
7. SUBJECTIVE CAREERS OF ENGINEERS AND BUSINESS ECONOMISTS	203
7.1 INTRODUCTION.....	203
7.2 DATA AND METHOD.....	204
<i>Data and Sample</i>	204
<i>Analytical Strategy</i>	205
<i>Methodological Difficulties</i>	207
7.3 THE AWAKENING AS INDIVIDUAL BREAKOUT.....	209
<i>“Normality“and Individual Breakout</i>	210
<i>Mechanisms of Awakening</i>	212
7.4 CONFIRMATION, DISSOCIATION AND NEW BONDS DURING THE MOULT PHASE.....	214
<i>Symbols and Tests of Ambition and Aptitude</i>	214

<i>The Higher Occupational School as Dissociation from Milieu of Origin</i>	216
7.5 TRIAL PHASE AND THE SEARCH FOR A CAREER ANCHOR.....	218
<i>Finding One's Career Anchor</i>	219
<i>Large-Scale versus Small Company</i>	220
<i>Functional Competence versus Management</i>	221
<i>Avoiding Drowning in Specialisation</i>	222
7.6 ASCENSION AND CONSOLIDATION.....	223
<i>Development during the Ascension: Ladder or Carousel?</i>	225
<i>Within or Between the Firms</i>	227
<i>Consolidation</i>	228
7.7 THE COOLING OUT-PHASE AS SMOOTH TRANSITION TO RETIREMENT.....	229
<i>Temporal Structure of the Cooling Out</i>	230
<i>Reasons for the Cooling Out</i>	230
<i>The New Contract</i>	231
7.8 CONCLUSIONS.....	232
8. BIOGRAPHICAL REPRESENTATIONS.....	237
8.1 INTRODUCTION.....	237
8.2 DATA AND METHOD.....	238
<i>Data and Sample</i>	238
<i>Analytical Strategy</i>	238
<i>Methodological Difficulties</i>	240
8.3 THE BIOGRAPHICAL DEVELOPMENT OF STRIVING.....	241
<i>Striving as a Long-Term Lifestyle</i>	242
<i>Transformation of Hierarchical Striving</i>	244
<i>Disengagement</i>	245
8.4 TWO VARIETIES OF PROGRESS.....	246
<i>The Technological Model of Innovation</i>	246
<i>The Financial Model of Innovation</i>	248
<i>Conclusion</i>	250
8.5 THE CONCEPTION OF TIME: PLANS, RHYTHM AND ORDER.....	251
<i>The Absence of Long-Term Career Plans</i>	252
<i>Rhythm as a Career-Norm?</i>	254
<i>Representations of Temporal Order</i>	256
<i>Conclusions</i>	259
8.6 MERITOCRACY?.....	260
<i>Educational Title as Formality</i>	261
<i>Applied and Theoretical Knowledge</i>	262
<i>Performance and Its Legitimizing Force</i>	263
<i>Experience</i>	264
<i>Personal Characteristics</i>	265
8.7 WORK AND FAMILY.....	265
<i>The Male Breadwinner Model</i>	266
<i>Postponement of Family Starting?</i>	267
<i>Conflictive Separation Between Family and Career</i>	269
<i>Rationalisation of the Family</i>	269
<i>Family Orientation?</i>	271
8.8 CONCLUSION.....	272
9. THE INTERPLAY BETWEEN STRUCTURES AND REPRESENTATIONS.....	277
9.1 INTRODUCTION.....	277
9.2 BIOGRAPHICAL DIFFERENTIATION AND THE HOURGLASS EFFECT.....	278
9.3 THE FUNCTIONING OF THE CAREER TYPES.....	282
<i>Technical-Industrial Careers</i>	282
<i>Industrial Management Career</i>	285
<i>Service Staff Career</i>	287
<i>Financial Banking Careers</i>	289
<i>Financial Careers</i>	292
<i>Small-Firm Career</i>	295
9.4 THE CAREER MECHANISMS.....	297
<i>Opportunity Structures</i>	297
<i>Clinging and Door-Opening Knowledge</i>	299

<i>Career Anchors and Conceptions of Progress</i>	301
<i>Critical Junctures and Self-Reinforcing Processes</i>	303
10. CORROSION OF ACHIEVEMENT CAREER	307
10.1 INTRODUCTION	307
10.2 DATA AND METHODS	308
<i>Data and Sample</i>	308
<i>Analytical Strategy</i>	308
<i>Methodological Difficulties</i>	309
10.3 INTERPRETATIONS OF CHANGE	309
<i>Before and After</i>	310
<i>The Organisational Level</i>	314
10.4 FROM CHANGE TO CRISIS	316
<i>The “Factual” Face of Individual Crises</i>	317
10.5 TYPES OF CRISIS ACROSS CAREERS	318
<i>The Threatened</i>	319
<i>The Broken</i>	321
<i>The Surfers</i>	323
<i>The Icaruses</i>	325
10.6 FACTORS EXPLAINING CRISIS	328
<i>Phases</i>	328
<i>Structures and Representations</i>	329
<i>Strategies</i>	330
11. CONCLUSIONS	333
11.1 THE STAGES OF ACHIEVEMENT CAREERS	333
11.2 THE TYPES OF CAREERS	335
11.3 CAREER MECHANISMS	336
11.4 ACHIEVEMENT CAREER AND THE BOURGEOIS FAMILY MODEL	338
11.5 THE 1990s—THE END OF THE “GEMÜTLICHKEIT”	340
11.6 THREATENED, BROKEN, SURFERS, AND ICARUSES	341
11.7 THE INADEQUACY OF “FRENCH CATEGORIES”	343
11.8 THE ARTICULATION BETWEEN QUANTITATIVE AND QUALITATIVE METHODS	345
11.9 LIMITS OF THE APPROACH	348
APPENDIX 1: QUESTIONNAIRE	353
APPENDIX 2: INTERVIEW GUIDE	359
APPENDIX 3: LIST AND DESCRIPTION OF INTERVIEWED PERSONS	361
APPENDIX 4: ARTICLE IN THE JOURNAL “INLINE”	366
INDEX FIGURES	368
INDEX TABLES	369
REFERENCES	370

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1. Introduction: Achievement Careers in Switzerland

This doctoral thesis deals with the rise and potential fall of achievement career as an institutional biographical pattern. I start with the assumption that the achievement career, as a result of the spread of large-scale bureaucratic companies, the male-breadwinner family model, and meritocratic ideals, came to life in the first half of the twentieth century. During the so-called 30 glorieuses, it became even a normatively dominant and also politically significant male biographical pattern. But the structural changes that announced the end of the post-war golden age seemed also to threaten and—according to certain scholars—erode this type of occupational trajectory. In order to understand this dynamic I will try to reconstruct the achievement career in Switzerland empirically. I examine (1) the structural changes of the economic field from 1970 to 2000, (2) the transformations of the trajectories during this period, and (3) ways in which the concerned individuals interpret and react to these changes.

1.1 Modernity and Institutionalisation of Biography

Each historical period features its own typical biographical patterns, left by the marks of the institutional setting through which the people move and the biographical choices they make within them. However, according to the Swiss sociologist Martin Kohli, biography has never played a more important role than in modernised societies (Kohli, 1985; 2003). Modernity—by means of demographic change, standardisation of family cycles, and rationalisation of work life—transforms the life course into a social institution in its own right (Kohli, 1985). Modernisation is therefore also a *process of institutionalisation of biography* that establishes biography as a significant principle of social structure. Let me briefly introduce the argumentation of Kohli.

According to him, the transformation into the modern regime of life course can be characterised by four tendencies (Kohli, 1985). First, the life course of individuals has been *temporalised*. Major life events are more and more linked to a specific age; the age of entry into the labour market, the age of marriage, the age of exit from the labour market have increasingly been homogenised. By the term “chronological ordering”,¹ Kohli addresses, secondly, the simultaneous *temporal ordering* of these events by new legal codes, the

¹ “Chronologisierung” in the original text.

generalisation of formal education but also the emergence of “informal” social norms. Currently the biographical system requires a formal education to enter the occupational system, or presupposes a certain number of working years before individuals can benefit from pension rights. Thirdly, the standardisation and ordering of the temporal axis of life allows individuals more and more to adopt a “biographical angle”, to plan their life from a long-term perspective. Finally, the modern life course—or the modern *male* life course, as Kohli’s critics commented rightly (Krüger & Levy, 2000; Widmer et al., 2003)—is structured as a threefold *standard-biography* centred on the employment system. Preparation period, active period, and retirement period structure the life course of large segments of the male population in the twentieth century.

Functionally, Kohli thinks that standardisation of the life course has been the answer to the historical requirements of social and economic rationalisation. It is no accident that a large number of administrative and organisational policies are based on formal age limits. The institutionalised life course takes over functions that in pre-modern societies were exercised by the local community, the family, or the occupational corporation. The individualised actors can be controlled in a delocalised way. The long-term perspective gives the actors an alternative kind of security that was lost by the dissolution of traditional community. What is more, standardisation of the life course solves problems of regulation of economic and familial succession that are posed in a completely new way with the rationalisation of the economy. Chronologically organised career systems, according to this argument, make it possible to tame and handle the “chaos” emerging from the creation of a “free” labour market. According to authors such as Goldthorpe (1995) and Lash and Urry (1987), what they call the “service class” is particularly difficult to control by employers and capitalists; therefore they reward loyalty by special employment relations, such as career systems.² The pension system, for instance, is a way for firms to regulate the end of work and succession in a rational and depersonalised manner. Finally, on a more macro-sociological level, the standardisation of the life course helps to coordinate the employment system with the family. Both individuals and capitalist firms are interested in a rational articulation of these sectors.

² The service class is, according to Goldthorpe the class of professional, administrative and managerial employees, who distinguish themselves by specific employment relations (such as long-term salary schemes, pension schemes or career systems) (Goldthorpe, 1995). For a discussion of the service class in British sociology, see also: Bidou-Zachariassen (2000).

1.2 Achievement Career as a Modal Trajectory

Kohli's argumentation covers a historically and culturally large transformation in its big lines. It is against the backdrop of institutionalisation of the standard biography that a series of finer, class-bound, *modal trajectories* emerge (Bourdieu, 1979: 123). Achievement careers can be seen as one of those class- and gender-bound modal trajectories.

For every social class or for every social milieu, certain occupational or familial trajectories are typical. Classes are also, perhaps *above all*, classes of trajectory (Bourdieu, 1979; Miles & Savage, 2004). If we narrow the view of occupational trajectory, the literature indicates that most mobile trajectories concern movement within the middle class, while in tendency working class and upper class seem to reproduce themselves (Bourdieu, 1979). This means that the chances to rise socially are particularly great in the middle class and, by consequence, it is also in these groups that the wish to "make a career" is traditionally widespread and typical.³ Second, achievement career has been constructed constitutively as a male trajectory. Historically, its development was directly related to the exclusion of "married women" and "mothers" from the labour market and the imposition of a male breadwinner family model (Wecker, 1988).

Therefore, the habitus fuelled by the search for individual mobility and social success is particularly common in the milieus of male qualified workers, commercial employees, and lower civil servants (Vester et al., 2001). As Vester et al. point out for the German case, these modern middle class fractions, especially the sons of the "performance oriented working-class milieu" and the "modern employee-milieu," are characterised by an "aspiring" habitus. The younger cohorts of these groups designate themselves by identities rooted in the future, defining themselves by what they aspire to become later in life. They are striving for a better future, for "opportunities" and "perspectives", for an occupational position with more social prestige and rewards. In order to achieve this, they rely on educational credentials and the mechanisms of meritocratic status allocations, which they believe reward everyone on the basis of talent, know-how, and performance, and act as drivers of innovation and economic progress (Bourdieu, 1979; Offe, 1970). This results in a "strong performance motivation" and identification with occupational work (Vester et al., 2001: 515), as those are the privileged

³ Of course this is also due to the fact that structurally the upper class cannot be upwardly mobile, because they are already at the top. In addition, it is clear that historically and contextually the barrier between working class and middle classes, respectively middle class and upper class are variable permeable.

means by which they hope to achieve their dreams of socially upward mobility (Vester et al., 2001).

1.3 A Political Reading of Achievement Career

Historically, the variety of such models of biographical trajectories can be considerable. Some, though, come to dominate a historical period. I argue that the “achievement career”, in this sense, was of pre-eminent importance for the post-war period, resulting from a number of socio-structural changes from the 1890s to the 1950s. As emphasised by several influential authors of the fifties, the period was characterised by strong numerical growth and simultaneous differentiation of the middle classes (Mills, 1956 [1951]; Whyte, 1963 [1956]).

As consumers and citizens, the middle classes became the centre of a wide range of commercial and political attention. Simultaneously, its internal structure changed fundamentally to the disadvantage of the traditional petty bourgeoisie (shop owners, small entrepreneurs). The modern fractions of the employed middle class—engineers, professionals, managers—increased inversely in number. They gained political force and came to dominate the values, ideals, and aspirations of the group as a whole. Socially and economically, the modern parts of the middle class, as the “central constellation” of the post-war period (Mendras, 1988), “constituted the most mobile and dynamic nucleus of the society, the principal utterer of values of modernity, of progress, of fashion and of success”(Castel, 1995: 587).⁴ They managed to impose their definition of success on large segments of society, not the least by their increasing control of public and political life (Castel, 1995). Middle class politics, as Boltanski shows (1982), are generally based on a argumentative pattern in which such politics represents itself as a “stable” and “healthy” force protecting society from the extremes, an effective rhetoric to transform particular into general interests (Boltanski, 1982: 63). Embedded in this kind of argumentation, the achievement career was to be practical proof of the possibility of overcoming class boundaries by way of generalised social mobility.

It is in this sense that the achievement career participated in a liberal political utopia of the capitalistic surmounting of social inequalities. This political project took the form of a "levelled middle class society" (Schelsky, 1975) or of a "fluid society" at the centre of American mobility research, where social rises and falls would also be the rule and in some

⁴ Translated by F.B.

way balance and continually mix up the society. Especially in the latter concept, American sociologists saw a guarantee for a stable and equally legitimised democracy (Lipset & Bendix, 1952; Cuin, 1993). However, the promises of this model were rapidly put into doubt, as critical scholars showed that even the supposed institutions of universalism and meritocracy were themselves bearers of reproduction and inequality (Bourdieu & Passeron, 1964). By the 1980s, scholars observed quite a fundamental change of economic and organisational structures, echoed by a transformation of the normative discourse about work and occupational careers (Boltanski & Chiapello, 1999). These authors not only said that the political promises inherent in careers were doomed to be disappointed; they postulated the erosion of the idea of career and the underlying meritocratic criteria of justice *as such*.

1.4 The End of the “30 Glorieuses”

In most Western countries, the depression of 1974/75 was the most visible sign for the end of the 30 glorieuses and its "spirit of capitalism", based on large-scale companies and careers. But this dramatic event only led to a period considered distinct, because it was followed by further crises in 1982/83 and from 1991 to 1994. Looking back at this transition from the perspective of the late 1990s, sociologists, including Richard Sennett (1998) and Luc Boltanski and Eve Chiapello (1999), declared the last decades to represent a "new capitalism" or a "new spirit of capitalism".

In Switzerland, the crisis of 1974/75 manifested itself in a major recession causing sharp deindustrialisation. It led to massive loss of manufacturing jobs, to the expulsion of a large number of foreign workers, and to retirement of women from the paid workforce. The depression of the 1990s was perceived as a prolonged period of slowed-down growth completed by further deindustrialisation. The firms of the leading banking, pharmaceutical, and mechanical industries reacted with a reinforced shareholder-value orientation, with relocations and mergers and acquisition strategies, and with internal restructuring (for an overview, see Honegger et al., 2002). For the first time since the Great Depression of the 1930s, a wider range of the active population was—and *felt*—threatened: The unemployment rate jolted up to 5%, and more than 18% of the population experienced a period of unemployment to some degree in the 1990s.

But what did this mean for large-scale bureaucratic firms, the assumed “home” of achievement career? Literature suggests that the restructuring led to a contraction of the promotional space and a shortening of career ladders in an attempt to de-bureaucratise structures (Bouffartigue & Gadéa, 2000: 93). Certain authors assume that clear-cut, vertical positions have been replaced by polyvalent, amorphous, and rather project-oriented tasks that can no longer be ordered in hierarchical terms (Boltanski & Chiapello, 1999). Individualised assessment systems, made possible by new performance measurement technologies, accelerated the erosion of traditional promotion mechanisms, such as senior entitlement or incremental salary schemes, and therefore contributed to the de-standardisation of trajectories (Power, 1997). The large bureaucratic enterprises willing to become “lean” and more “efficient” are presumed to outsource services they no longer consider their core business. In this way they have contributed to the reduction of the share of large-scale companies and therefore weakened the institutional mechanisms supporting achievement career. Finally, their reinforced shareholder-value orientation led the firms to abandon paternalistic—but financially “irrational”—protection policies for careers. This would have given rise to new recruiting and dismissal policies and finally to an increasing share of “broken ladders” (Osterman, 1996; Capelli, 1999).

This erosion of the structural foundation of the career is said to have been doubled by a challenge of its *normative bases* by discourse of enterprises and management literature (Boltanski & Chiapello, 1999). Boltanski and Chiapello state that with the emergence of the post-Fordian lean and flexible firm, the promises of a secure and successful career have been replaced by prospects of participating in creative, stimulating, and enriching projects that overcome imprisoning boundaries (of enterprises, culture, or professions). As in the management discourse of the 1990s, “flexibility” is the new fetish; because the new organisations are supposed to become fluid and constantly adapt to changing demands, long-term security is no longer something they can offer their employees and future managers. Success is also considered to be changing its colour: it is no longer embodied in promotion in a “paralysed” and “mechanical” hierarchy but in participation in a large network of relations. Overall, the management discourse is presumed to highlight the adventurous and liberating character of a career as a succession of projects mounted with the help of relational resources.

1.5 The Corrosion of Career

What are the consequences of these structural and normative changes for achievement careers? In the literature, the variety of answers is large, from those who think that traditional careers persist but are going to be completed by some new career forms (Dany, 2001) to those who predict literally the "death of career" (Capelli, 1999). Common to most commentators is the idea that the "old"—orderly, incremental, loyal, bureaucratic, etc.—career is doomed to disappear.

Conspicuously, it seems that in order to highlight the "newness" of the career forms to come, most of these authors sketch a particularly caricatural picture of the "old career". The traditional achievement career leading to success is said to occur exclusively within one single large company, to be regulated entirely by its structures and rules, and, on the individual level, to be completely foreseeable and therefore part of a comprehensive and detailed life plan. In other words, despite the fact that this slightly mechanical image of achievement career was put into severe doubt very early on (Becker & Strauss, 1956; Wilensky, 1961), the prophets of the "new career" prefer to fall back on either theoretical notions of "bureaucratic careers" (Mannheim, 1952)⁵ or deliberately caricatural versions (Whyte, 1963 [1956]) of career description. In his thesis of "Organisation Man" as a "historical deformation" of the enterprising and free American, Whyte states that "organisation man" worked his way up through the hierarchical layers of the large corporation. Each step on the career path was planned and known in advance, loyalty to the organisation being repaid by job security and steady progress up the corporate ladder" (Gunn & Bell, 2003 [2002]: 190).

The advocates of the end of achievement career cast doubt on most of the elements traditionally assigned to careers. Arthur and Rousseau (1996) suggest, for instance, that the dominance of the "organisational career" is increasingly replaced by the "boundaryless career". This new type of career is supposed to be characterised by an increase in moves across firm boundaries and a series of extra-firm mechanisms intervening in the unfolding of the career. They thus cast doubt on the thesis that achievement careers occur loyally within one organisation and conclude from this that the new careers are less dependent on structures

⁵ To whom Becker and Strauss (1956) for example referred in order to explicit their alternative, more open career model. Mannheim himself seems to be directly influenced by Weber, who mentioned, but did not further develop the concept of career (Weber, 1972 [1921])

and more on individual decision. The French sociologist Dany (2001) doubts the mere vertical character of contemporary careers. She postulates that, aside from the traditional promise of a vertical achievement career and in order to dampen the clash between traditional aspirations and new realities, human resources managers would develop “a promise of a subjective career, concerning internal horizontal mobility trajectories, through which middle management and certain professionals learn to find sources of satisfaction within positions not corresponding to traditional conceptions of success” (Bouffartigue & Gadea, 2000: 87).⁶ Still others, such as Wohlrab-Sahr, think that achievement careers in the current context become increasingly de-standardised in terms of rhythm and order and adapt slowly to what have formerly been typical female trajectories (Wohlrab-Sahr, 1995).

To sum up, these authors postulate that the orderly and loyal career of middle-class men in the post-war period has eroded or even disappeared with the transformation of capitalism in the last decades. This hypothesis raises two questions: what has actually been the shape of this kind of mythic and nostalgic "old achievement career" these scholars talk about? Has it ever existed? Has it been characterised by total loyalty and orderliness, or has it always been—as suggested in the accounts of Becker or Wilensky—a caricature? Second, how did it actually change across the structural transformation of the 1970s, 1980s, and 1990s? How did its underlying structures change? How did its course change? And how did the biographical representations, interpretation, and strategies of the actors of career change along with it?

1.6 Structure

Discussion of these questions is at the centre of this doctoral thesis. It is organised in three parts: a theoretical and methodological part, an empirical part and a conclusion.

At the beginning of the theoretical and methodological part of chapter 2, I shall expound on my theoretical model. It has several functions. First, it serves as a summary of career theory that I will use in further arguments. Second, as the discourse on achievement careers and, even more, on the decline of achievement career is quite international, it will be used as a kind of *decontextualised, idealtypical model* to which different nationally or historically specified incarnations can be compared. Third, it also serves as a kind of directory to subsequent chapters, as its elements structure the empirical investigation. In chapter 3, I

⁶ Translated by F.B.

present the hypotheses that have emerged in the last decades, most prominently in France, but also in other “national sociologies” about the decline or even the death of the achievement career. By way of confronting the ideal typical model of achievement career with these theories, I will then develop my own research questions. These concern the Swiss situation, on a very descriptive level: I want to know to what extent the universal model of achievement career, as well as the mentioned hypotheses about the erosion of achievement career apply to the Swiss case. I will focus on the structural changes from 1970 to 2000 in Switzerland and their similarities to and differences from other contexts, combined with questions about the interpretations and reactions of those who pursue such a career at this time. Chapter 4 is devoted to my research strategies and methods. I show which strategies I deploy to tackle careers, in order to respond to a rather comprehensive and heterogeneous set of questions. I specifically point out how examination of engineers and business economists, combined with a set of new methods, allows me to expand earlier theories about achievement careers.

Part II begins with the quintessential empirical chapters: in chapter 6, I examine the transformation of the economic and social structures from 1970 to 2000 in Switzerland, with a special focus on the consequences these changes had for the opportunity structures to make careers for economists and engineers. Two chapters follow on what I call “objective” (chapter 7) and “subjective” (chapter 8) achievement careers: the first one deals with the *achievement career as sequences of positions* (functions, branches, firms) and their historical transformations. The second, complementary approach, examines how the individuals who pursue these trajectories *experience and interpret them in subjective terms*. Finally, I complete the theoretical model in chapter 9 on the biographical representations; here I try to understand which social representations are central to social climbers, whether and how they evolve biographically, and what they mean in the situation of structural change of 1970 to 2000.

Part III is composed of three concluding chapters that pick up the results of Part II and try to reformulate them in more theoretical terms. At this stage I will first try to synthesise and integrate all formerly treated elements in a chapter on career mechanisms (chapter 10), namely by integrating theories of opportunity structure, professionalism, and cumulative advantage. Chapter 11 carries on with an examination of the changes achievement careers have undergone in the course of the structural crisis of the 1990s and presents a typology of involvement. In the concluding 12th chapter I again summarise all the major results and cast a glance at possible future developments.

PART I

Theory and Methods

2. A Heuristic Model of Achievement Career

2.1 Introduction

The heuristic model I will describe in this chapter is supposed to give a first, exploratory definition of achievement career and set the conceptual framework for my empirical investigations. Its purpose is threefold:

- 1) It serves as an occasion to sketch a first, rough theory of biographical trajectories and outlines the elements that, in my eyes, are indispensable to understanding achievement careers. The model is ultimately rooted in a constructivist framework such as that first presented by the pioneers of the Chicago School of Sociology (Thomas & Znaniecki, 1958 [1918]) and then further developed by their successors, including Hughes (1937; 1958), Becker (1963), and Strauss (1993). It is these authors who first presented biographical research as a means to overcoming sterile opposition as structure/sense, objective/subjective or collective/individual (Corcuff, 1995). These authors have recently been joined by more who conceptualise social structures as the product of long-term, joint individual action and social action as the consequence of social structuration (Berger & Luckmann, 1969 [1966]; Giddens, 1986 [1984]); Bourdieu, 1979, 1980; Fischer & Kohli, 1987).⁷
- 2) The model is purposely a de-contextualised and ideal-typical “bricolage”. It is an eclectic compilation of concepts and ideas stemming from varying cultural and historical contexts. It puts into a common framework different aspects of the achievement career, some of which are very well studied and others that are not very well known yet. According to the Weberian concept of the ideal-type (Weber, 1972 [1921]), certain aspects are sharpened, while others are omitted in order to create a clearer and heuristically more powerful picture. This sharpened tool can then be compared with the specific research questions stemming from the French context, but also with the situation in Switzerland.

⁷ These are, in my eyes, in terms of influence, the most important authors defending constructivist-structuralist ideas. Against a certain tendency, most notably in French sociology, to put authors such as Becker or Strauss into the “situational sub-group of symbolic interactionism” there is undeniably an epistemological closeness for example between Becker and Bourdieu.

- 3) The model is supposed to serve as a directory to the text. Its elements form the basis of chapters in the empirical part of the book, for example, “social structures” (chapter 6), “objective career” (chapter 7), “subjective career” (chapter 8), and “biographic representation” (chapter 9). Depending on their nature, these aspects of the model are examined by either quantitative or qualitative methods or by a mix of both methods. Accordingly, the heuristic status of theory varies for each element. While the quantitatively studied aspects require clearly circumscribed definitions that can be operationalised, quantified, and measured, the qualitatively inspected phenomena are described in more open and general terms. “Sensitising concepts”⁸ allow me to approach careers with a general theoretical background that refrains from confining them to standardised categories (Blumer, 1954; Kelle & Kluge, 1999).

2.2 The Theoretical Anchor

Before developing the heuristic model, I would like to briefly explain my theoretical anchor. In their methodological note on “The Polish Peasant in Europe and America”, Thomas and Znaniecki write: “[...] the human personality is both a continually producing factor and a continually produced result of social evolution, and this double relation expresses itself in every elementary social fact; there can be for social science no change of social reality which is not the common effect of pre-existing social values and individual attitudes acting upon them” (Thomas & Znaniecki, 1958 [1918]: 1831). This dialectical mechanism between objective structures and subjective action has become a deep-rooted principle of modern social science, whether in terms of “institutionalisation versus internalisation” (Berger & Luckmann, 1966), “encode-fashion versus enact-constitute” (Giddens, 1986 [1984]), or of “field versus habitus” (Bourdieu, 1980)⁹. Biographical trajectories are a phenomenon that calls literally for such a dialectical perspective. They are a product of individual choices and strategies within a certain institutional and structural setting. Based on Corcuff (1995), I can describe the basic principles of such constructivist approaches as follows: First, the construction of biographies and institutions is based on “pre-constructions of the past”

⁸ Blumer explains: „Whereas definitive concepts provide prescription of what to see, sensitizing concepts merely suggest directions along which to look. The hundreds of our concepts – like culture- institutions, social structures, mores, and personality – are not definitive concepts but are sensitizing in nature. They lack precise reference and have no bench marks which allow a clean-cut identification of a specific instance and of its content. Instead they rest on a general sense of what is relevant” (Blumer, 1954: 7). For details see: Chapter 8.2

⁹ For an overview, which explains well the common denominators of these authors and why they distinguish themselves (or not) from prior generations, see: Corcuff, 1995.

(Corcuff, 1995: 17) that impose themselves on the actor, either in the process of socialisation or in form of “structures of opportunity” (Eisinger, 1973) in the course of the whole biography. Second, these social pre-constructions are reproduced, appropriated, transformed, and completed with newly invented forms by the social actors in their daily interactions and practices (Corcuff, 1995; Fischer & Kohli, 1987).¹⁰ Third, the combination of historical heritage and individual work of reproduction and transformation opens to a “field of the possible for the future” that will become the institutions and structural constraints of succeeding generations (Corcuff, 1995).

Epistemologically and theoretically such an approach, conceptualising biography as a “product of interaction between the actions of individuals and the determinisms of structures” (Passeron, 1990: 3), is opposed simultaneously to “objectivist” (respectively “structuralist”) and “subjectivist” (respectively “individualist”) approaches (Corcuff, 1995; Passeron, 1990; Kluge & Kelle, 2001). The exponents of the first, Durkheimian approach state that the actions of individuals “before all possibilities of tactical or strategic choice, are already structured by norms, social definitions, representations, or more generally even, socially conditioned ‘typical chances’ of biographical development or orientation” (Passeron, 1990:18).¹¹ The way social actors apprehend the world, in which categories and the ways in which such actors think and argue is in this perspective irrelevant to social action, is pre-determined by social structures whose mechanisms of influence are usually not spontaneously accessible to the profane human mind. In the opposite case, the explanation of every social phenomenon has to rely on the exclusive observation and reconstruction of the motivations of the individuals. These phenomena are considered the result of the aggregation of these motivated actions (Corcuff, 1995). This postulate is often completed by the idea that the actors and their individual strategies are guided by principles of “rationality” that in extreme cases are presumed to follow calculations of cost and benefit.

Against these two opposed, but equally inadequate approaches, I try to simultaneously integrate structural elements and individual interpretations and to examine the relationship between the two. Consequently, my heuristic model is composed of three elements and their interrelationships: (1) career trajectories in their subjective and objective varieties, (2) social structures, namely large-scale bureaucratic firms and the generalisation of the male-

¹⁰ The example of Fischer and Kohli shows, that even scholars of the phenomenological tradition are not only open to structural arguments, but consider social structure as necessary theoretical element.

¹¹ Translated by F.B.

breadwinner family model, and (3) individual career representations in the form of projects, plans or retrospective balances.

2.3 Achievement Career as Institution

I consider achievement career as a social institution. Institutions, in the terms of Luckmann and Berger, are repeated actions that harden historically into relatively stable cultural models (Berger & Luckmann, 1969 [1966]: 56). This first definition puts the regularity of human agency in the foreground but fails to explain why these actions follow stable patterns. Certain scholars therefore criticised the fact that in this perspective every action is considered an institution that is not “situational, spontaneous, non-recurrent or deviant” (Schmeiser, 2006: 54). Therefore, it makes sense to complete it by including structural and individual reasons for this stability and regularity: On the one hand, actions harden into stable models because they are regulated by structural mechanisms, such as the educational system, the retirement system, legal regulations of age, or the structural organisation of work (Kohli, 1985). The combination and addition of all these effects may create certain regularities of agency. On the other hand, these regular patterns of action harden into collective and cultural models and, as such, influence the strategies and actions of individuals. Careers are, thus, also the consequence of internalisation and appropriation of cultural models of biographical orientations and their transpositions to individual plans, projects, or biographical balances. All in all, the institutionalisation of biography involves the emergence of a relatively stable, interrelated system of social and mental structures. Kohli explains, “Life course as institution means on the one hand regulation of the sequential course of life, on the other the structuration of worldly horizons i.e. stocks of knowledge, within which individuals orient themselves and plan their actions” (Kohli, 1985: 3).¹² By their strategies and differential re-appropriations of institutions, individuals are constantly reproducing or varying the structures. The sum and combination of these actions in turn transforms the institutions; lets them harden into new models with a certain temporal stability.

It is evident that the standardisation of the life course reposes on the combination of many structural factors, including welfare policies, labour market policies, and strategies of the dominant economic actors. In order to understand the structural shaping of achievement

¹² Translated by F.B.

career, I will concentrate on the evolution of the *structural organisation of the labour market* and *family structures*. The first establishes the mechanisms of recruiting, promotion, fluctuation, and dismissal that contribute to the stabilisation of the career as a pattern of action. The latter contributes to the exclusion of women from the paid workforce and functionally disburdens the men who are pursuing a career. I therefore assume that these institutions determine the structures of opportunity at different biographical moments and give form to the career as a stable institutional model. However, careers are by far not a sole product of structural pressure; "people make careers as much as careers make people" (Van Maanen, 1977:8). Cultural models of trajectories and individual orientations constitute the subjective counterpart of structural regulation and contribute individual choices and actions to the shaping of achievement careers. Although this subjective aspect of career has been less studied,¹³ in the literature these individual orientations have been conceptualised, for example, as *biographical scripts* (Barley, 1989) or *biographical habitus* (Bourdieu, 1980). The individual biographical conceptions of the people who pursue achievement careers include at the same time plans, projects, or aims for the future and retrospective balances/interpretations from a present perspective. I will thus emphasise the fact that structural regulations are not irremovable given but constantly appropriated and interpreted by the actors. It is ultimately the meanings they attribute to the structures that will guide their actions.

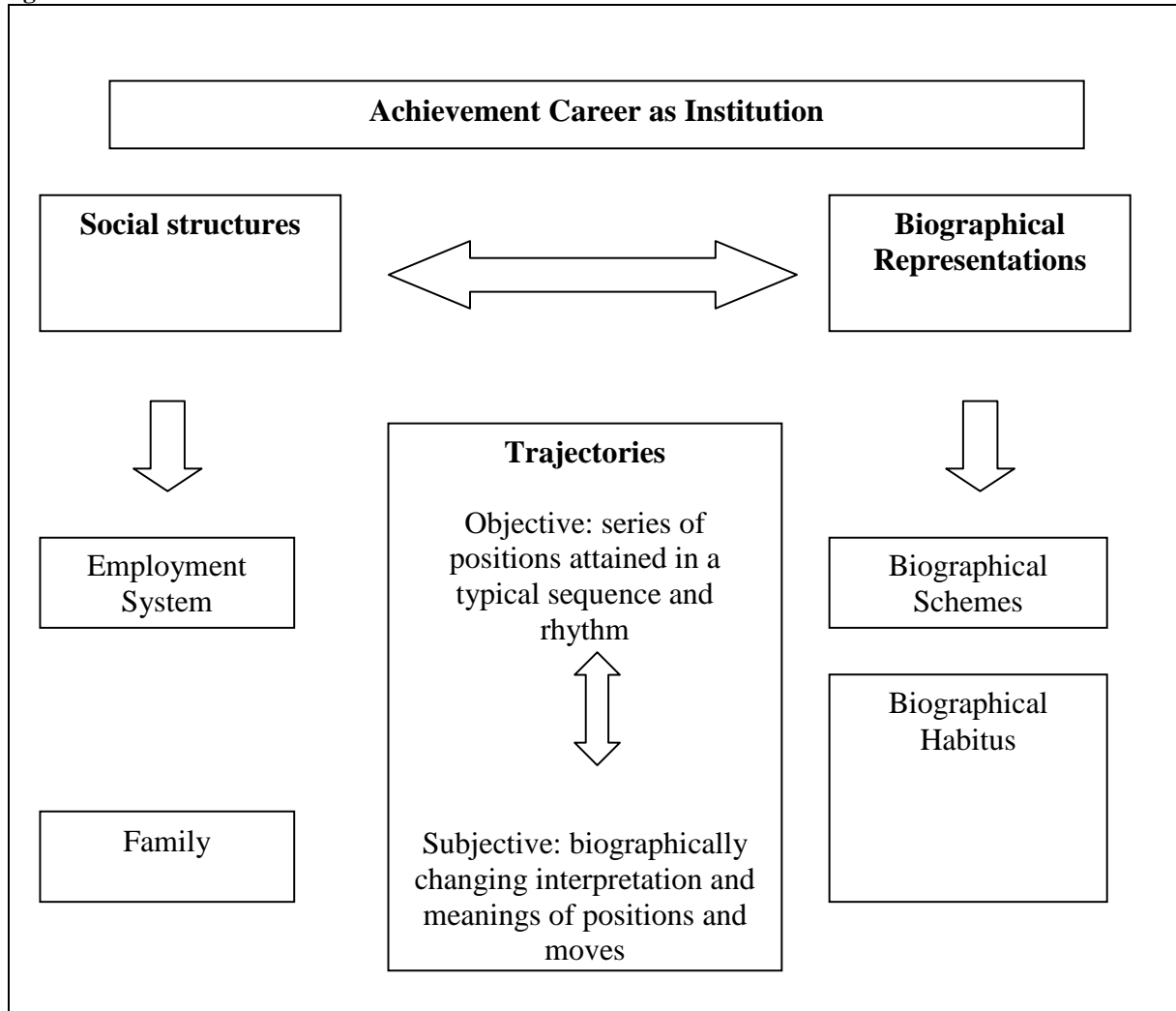
The result of this interaction between institutional structures and individual biographical projections and plans is the trajectories. However, the relationships in the triangle "social structure" and "individual sense" and the trajectory "action" always have a partially open and emergent character. Biographical trajectories are simultaneously pre-structured and emergent—the ambiguous relationship between these two moments cannot be determined generally but "has to be imbedded in the reconstruction of the field of action, i.e., the objectively given horizon of biographical possibilities of action" (Fischer & Kohli, 1987: 38).¹⁴

The following figure is a schematic representation of the theoretical model I have sketched so far. In the following section I develop each of its elements and give further details about the relationship between them.

¹³ Only recently, Schmeiser tried to complete the structural theorisation of the institutionalisation of the life course, by a historical study of the "inner" institutionalisation (Schmeiser, 2006)

¹⁴ Translated by F.B.

Figure 1: Theoretical Model of Achievement Career as Institution



2.4 Trajectories

Trajectories, Careers, and Achievement Careers

An *occupational trajectory* refers simply to the succession of jobs a person accomplishes during his or her life, independent of the links between them. *Careers* are “work histories” or a “sequence of jobs” ordered by different salaries, work conditions, formal power, and prestige (Spilerman, 1977). In other words, careers are different from the more static concepts of “job” or “occupation”. A job is an employment relation where the actual work situation is not linked to prior or future work situations; an occupation is a group of workers/employees with a common education, common techniques, common ways of thinking, and a common type of work (Miles & Savage, 2004). As a third category, the organisation of work in terms of career implies a “link” or an “order” with a social meaning or a social function that is

supported by institutions and has congealed into cultural models. This linkage can be of different kind: horizontally, downward, or otherwise organised sequences (Becker, 1952). *Achievement careers*, to distinguish them from other types of *careers*, are characterised by hierarchically upward mobility, orderliness, loyalty, and a particular temporal rhythm. The difference between "occupational trajectory", "career", and "achievement career" is by consequence the result of a different degree of specification. As with a Russian doll, an achievement career is a career in an occupational trajectory. Inversely, only when certain conditions are fulfilled can a trajectory be considered a career and a career can be understood as an achievement career.

Objective and Subjective Careers

According to Hughes (1937), it is useful to distinguish *objective* from *subjective* careers. He explains: "[...] a career consists, objectively, of a series of status and clearly defined offices. [...] unless complete disorder reigns, there will be typical sequences of position, achievement, responsibility, and even of adventure". [...] Subjectively, a career is the moving perspective in which the person sees his life as a whole and interprets the meaning of his various attributes, actions, and the things which happen to him" (Hughes, 1937: 409-410). This distinction mirrors two different research traditions (Kluge & Kelle, 2001; Passeron, 1990; Dubar, 1998): Quantitative "life course research" conceptualises trajectories as sequences of events that change the social status or role-configurations of an individual.¹⁵ Qualitative biography research "ensues in its studies with individual life courses as well, but refers in its analyses not to single transitions measurable with socio-demographic variables [...] It tries to reconstruct the life history from the perspective of the interviewee" (Kluge & Kelle, 2001: 13).¹⁶ I conceptualise the two aspects as part of the same phenomenon; they refer dialectically to each other and can also be used to control and complete each other (see chapter 11.4). In the ideal case the phases and transitions measured by quantitative methods correspond to the way the individual perceives his or her own pathway.

Characteristics of the Objective Achievement Career

In order to define objective achievement careers, I will discuss their supposed characteristics: upward mobility, orderliness, loyalty, and a specific temporal rhythm as a marker of success.

¹⁵ This is exactly Spilerman's understanding of career (1977).

¹⁶ Translated by F.B.

Upward Mobility

Achievement careers are upwardly mobile occupational trajectories. People who pursue them are supposed to change jobs regularly. This distinguishes them from professionals such as teachers or physicians who are in a relatively secure position during their entire life, serving the same school or the same community (Hall, 1949). In addition, this definition separates their work histories from groups whose trajectories, though also steered by incremental salary increases, are based on tenure (Stovel et al., 1996). Curiously, mobility brings them into line with unqualified workers, who often experience a large number of job changes; however, in contrast with non-ordered, chaotic, and unforeseeable shifts of unqualified workers, the mobility of actors pursuing achievement careers is hierarchically ordered. Changes in occupational positions are supposed to be moves to a job equipped with more prestige, more authority, more responsibilities, and a greater salary (Mannheim, 1952).¹⁷

Incremental Orderliness

In his theory of the legal-rational bureaucratic organisation, Weber stated that organisational rules of senior entitlement and meritocratic rewards resulted in incremental and regular occupational trajectories (Weber, 1972 [1921]). This incremental upward mobility—in contrast to skipping over levels and rapid upward moves—allows me to precisely describe achievement career. Following Wilensky (1961), I distinguish a functional from a hierarchical aspect of incremental orderliness: functionally, the employee has to master the basic tasks of the first job, in order to move to the next, more demanding job. An illustrative example of this idea of “line of progression” is given by Doeringer and Piore, in which “work on one job develops the skills required for the more complex tasks on the job above it, and those at one point in the line constitute the natural source of supply for the next job along the line” (1971: 58). Hierarchically, senior entitlement promises jobs on the next higher level of organisation to the most experienced and productive from the lower level. This is supposed to result in slow but hierarchically incremental trajectories where individuals are steadily promoted to the next higher position.

¹⁷ This reference of Mannheim, but also the remarks of Weber concerning the careers of public servants in bureaucratic organization, indicates that the upward directed mobility was very early a distinctive characteristic of careers. However, it has to be taken into account that historically and contextually the static vs. mobile character of professional careers or working class jobs can vary. Changes in the field of teaching for example can also transform these careers, for example into more mobile ones.

Loyalty and Forseeability

Scholars of internal labour market theories assume that achievement careers happen within one single large enterprise, individuals being conducted securely through the different functions and hierarchical levels (Althausen, 1989). They postulate not only that firms favour internal careers by establishing career ladders, but also that a majority of the employees effectively seize this opportunity. The composite promise of success, forseeability, and security would have a strong appeal to young aspirants. In the 1950s, authors like Wythe (1963 [1956]) caricatured this kind of idea in a thesis with “Organisation Man” as a “historical deformation” of the enterprising and free American: “‘Organisation man’ worked his way up through the hierarchical layers of the large corporation. Each step on the career path was planned and known in advance, loyalty to the organisation being repaid by job security and steady progress up the corporate ladder” (Gunn & Bell, 2002: 190). The forseeability of the linkages between jobs and loyalty to a firm results also from specific structural incentives of firms. Firms used, for instance, incremental and hierarchy-bound salary schemes or firm-specific pension systems, to loyalise their employees (Erikson & Goldthorpe, 1992).

Temporal Rhythm as Marker of Success

An achievement career does not consist only of climbing a ladder of hierarchically ordered occupational positions. The climbing is supposed to follow a certain temporal rhythm. In their study of English Lloyd’s Bank, Stovel et al. found that “early moves were keyed to subsequent moves, so that managers and clerks could assess their chances for promotion and act in accordance with these assessments” (Stovel et al, 1996: 392). In comparable terms, Wohlrab-Sahr states that one of the characteristics of a “successful career” is “that the temporal structure of the biography itself – the timing of the stages, the continuity of the sequences – is perceived as ‘biographical marker’ leading to the attribution of success and becomes a referential condition for the success to come” (Wohlrab-Sahr, 1995: 234).¹⁸ In sequential terms, particularly fast hierarchical moves at the beginning of a career become essential for the recognition of “talent” or “potential” and are a precondition for moving to higher positions in later career phases. In other terms, careers are regulated by age norms. Informal age thresholds, varying more or less culturally and historically, indicate to the

¹⁸ Translated by F.B.

individual (and to his “competitors”) whether his advancement at the present biographical stage is perceived socially as successful or not.¹⁹

The Characteristics of the Subjective Achievement Career

Hughes’ broad definition of the subjective career includes “the meanings of his various attributes, actions, and the things which happen to him” (Hughes, 1937: 410). It seems that his definition embraces almost all possible subjective biographical meanings and makes it difficult to distinguish between “general representations” and “biographical representations”.²⁰ Therefore, I narrow his definition in a first step to the individual perception, categorisation, and interpretation of the events and phases of one’s occupational trajectory. This definition accords well with the analytical program proposed by German sociologist Fritz Schütze (1983) in order to reconstruct subjective trajectories by the analysis of in-depth biographical interviews.²¹ Before focusing on the meanings, interpretations, and strategies of the individual, he suggests lying open the dynamic structures of the life course as perceived by the actors. In other words, before we can understand what a certain biographical period means to an individual, we have to identify the relevant periods and events in the individual’s mind. “To the interrogation ‘how does the actor of biography interpret his life history?’ can in my opinion only then be given a satisfactory answer, if the researcher is able to embed the interpretative-theoretical efforts of the actor in the context of the factual processual course of his life” (Schütze, 1983: 284)²². Compared with the analysis of objective career trajectories, such an approach can be at the same time preparatory and complementary. The individual selection and hierarchisation of the events and phases of a career might inform the researcher about dimensions of the trajectory of which he or she might have not been thinking in the first place, or which are not given much space in the literature on careers (Kluge & Kelle, 2001). Second, in the interpretative phase, the subjective trajectory can be compared with the objective trajectory; this comparison might reveal that the objective criteria of “orderliness” or “loyalty” are only two among three or four central career

¹⁹ Spilerman, for example, uses the homogeneity of the age in a certain position as an indicator of the presence of a career-line in a firm (Spilerman, 1977).

²⁰ Of course, in a certain sense, all individual meanings are more or less « biographical meanings ». However, I think it is useful to analytically distinguish representations such as « plans », « projects » or « balances » from more general representation, as the individual evaluation of contemporary art or the political opinion about nuclear power. Even if also those probably change in the course of an individual biography.

²¹ Schütze, together with Kohli or Fischer, was one of the important authors of the revival of biographical research in Germany in the early 1980s. His work, as by the way also the french debate about biography at about the same time (Berteaux, 1986), is heavily inspired by the late « re-discovery » of the Chicago School of Sociology. His concept of « Verlaufskurve » is a rather direct importation of the idea of « health trajectories » Glaser and Strauss developed in their research on chronic illness and dying (Glaser & Strauss, 1965).

²² Translated by F.B.

dimensions, so that what seems uniformly "loyalty" in quantitative analyses can take very different meanings in individual experience.²³ Hence, in this part I focus on the way that actors perceive their trajectories, and the phases, transitions, and events that are relevant in their eyes. However, only rarely have scholars applied such an approach to achievement careers; we know little about the subjective perceptions of careers. In order to fill the concept with empirical substance, I therefore recur to questions and heuristic speculations. These questions and speculations can then be used as "sensitising concepts" during analysis of career perceptions of the actors (Blumer, 1954; Kelle & Kluge, 1999)²⁴.

In quantitative and objective approaches the researcher is often forced, for purposes of standardisation, to determine the beginning and the end of the period of examination on the basis of theoretical reflections. The qualitative approach provides the opportunity to investigate the subjective beginning of a specific trajectory and its specific temporal order. Even if this subjective evaluation of the "beginning" does not tell us the "truth" about this moment, the subjective interpretation helps us to understand this event and can complete the quantitative data on the question. In the first part I focus on the subjective career beginning. Has a person's career ever been something he or she was destined for, or is the wish to rise socially something that comes up along the way? What are the events, the turning points, or the experiences that brought about the wish to climb in social hierarchy? Which institutions and actors are contributing to the emergence and nurturing of that wish? Second, I would like to shed light on preparation for careers and examine the passages through which career candidates must pass. I seek to identify passages that give careers a "fundament" or underlying principle, or might function as a "springboard" or even a "catapult".

According to my heuristic model (see above), a career, even though steered by institutions, depends also on the individual decisions within the structural framework; every decision also hinges on the individual interpretation of the prior trajectory (as perceived in the present) and the subjectively perceived opportunities of a future trajectory (also from a present point of view). To understand the unfolding of career as interplay between objective structures and the sense subjectively given to the trajectory, I am secondly interested in the periods and stages of career in a subjective perspective. What events, processes, or self-evaluation is linked to these

²³ See for example chapter 7.6 where, thanks to the subjective data, I show that in some cases what I „objectively“ defined as „loyalty“ is motivated by the wish to climb further and to profit from the occasions offered by the firm, while in other cases it is determined by the project-oriented work organisation

²⁴ See also chapter 8.2

divisions? For example, the transition between two phases can be very sharp. It can be a ritual celebrated socially with colleagues, friends, and family, or it can be a vague, slow passage that the individual does not recognise as an important transition.

Rhythm, as suggested in the literature on careers (Wohlrab-Sahr, 1995), is another crucial aspect of career. Because it works as a "marker of success" (Wohlrab-Sahr, 1995: 234), it is not used only by firms but also by the individual himself to evaluate his or her potential for the future. And what ultimately matters to the individual is not an "objective measure" of the career rhythm—seldom at his or her disposal—but his own subjective evaluation of the rhythm. Therefore, I am further interested in how interviewees perceive the rhythm of their career; therefore I ask which events have structured their trajectories. Is it the same transitions as I take into account in the study of the objective trajectory (i.e., branch, firm size, function and position)? Are these categories subjectively pertinent, or do they have to be completed by supplementary dimensions, or can they be understood only as specific combinations of changes in two or more of these dimensions?

Finally, I seek to understand the ending of careers. As with beginnings, it can be helpful to know the subjective interpretation of the actor who is pursuing the career in order to understand the dynamics of its "end" or its "fading". Is the person effectively stopping abruptly at the moment of legal retirement, at the age of 65? Or is there a kind of a slow transition towards retirement? By which events and on the basis of which rhythms would such a transition be organised? Are these formal changes, or processes based on informal agreements, and are these processes the same for all interviewees, or do they differ in their temporal structure according to certain criteria?

2.5 Social Structures

Kohli has demonstrated that modern biography is structurally formed by the educational system, legal norms, and welfare policies (Kohli, 1985). Considering the achievement career as a particular case of modern biography, I assume that it has been shaped by similar institutional factors. Two of them are highlighted in the literature as particularly relevant: the transformation of the *employment system* and the generalisation of the *bourgeois family model*.

Large-Scale Bureaucratic Organisations

The employment system and its organisational structures are indispensable supports to the achievement career. Only in certain, genuinely modern types of organisations can orderly upward mobile trajectories emerge. To understand careers therefore means examining the functioning of large-scale, bureaucratic firms. To begin, I would like to oppose two possible theories on the link between careers and large-scale bureaucratic firms.

Efficiency and Optimisation of the Firm

Functionalist scholars argue that firms established career ladders to improve their efficiency, in order to outrun their competitors by this supposedly more functional form of organisation. The archetypal argumentation of this school can be found in the pioneering work of Doeringer and Piore on internal labour markets (1971). They think that internal labour markets in general, and “lines of progressions” or “career ladders” in particular, emerge because firms seek to organise their *firm-specific knowledge and on-the-job training* in an optimal way. They suggest that training in firm-specific tasks and skills increases the proportion of training costs borne by the employer and the absolute cost of training. This pushes employers to reduce the turnover of their workforce and to recur to incentives in the form of career ladders (Doeringer & Piore, 1971: 14). Similarly, career ladders would provide security and therefore prevent competitiveness between employees—factors that contribute to a climate of trust beneficial to the safe transmission of knowledge and skills (Althauser, 1989: 153).

Second, career ladders are said to improve the regulation of recruitment and firm shifts; career promises loyalise employees and put up barriers to the loss of internal knowledge to competitors eager to know the internal secrets of a firm. Conversely, the knowledge acquired in an internal traineeship can be so specific that it is of no use in other firms; therefore, employees would prefer to stay within a firm and to climb its career ladder. Furthermore, career ladders and policies centred on internal promotion allow firms to carefully evaluate and select their future managers and minimise the risk of recruiting external candidates for managerial positions. Another function of career would be to assure a homogeneous firm culture across geographically distant or culturally diverse branches, departments, or plants. In this perspective, careers help employers to coordinate and control large, heterogeneous, geographically widespread firms. All in all, in a functionalist perspective, career ladders are

considered a means of managing and optimising internal knowledge and of reducing costs of training.

Power and Control in the Firm

Alternatively, conflictualist scholars argue that careers exist because an elite within the firms seeks to control and discipline subordinate groups.

In such a perspective careers are means of disciplinisation and control over a firm's employees. Miles and Savage explain that "the elaboration of the 'career' can be seen as depending both on the construction of forms of inspection, examination and control to regulate job movements and to decide who should be promoted, but also the construction of particular forms of 'selfhood', as individual employees themselves come to recognise the 'career' as something which they should engage in" (Miles & Savage, 2004: 82). The long-term promise of career operates as a subtle form of control, mostly for younger employees. A case study of Grey (1994) shows that, in order not to compromise their chances of climbing the career ladder, young trainees in a large accounting firm adapted their behaviour to the expectations of the firm, accept boring routine tasks not corresponding to the expectations inherent in their degrees, and salaries below that paid to comparable positions. Inversely, they hoped their current sacrifices would pay off in the long run. With these surveillance techniques firms create specific kind of selves. They subtly animate young recruits to display an "enthusiastic" and "committed" attitude toward their work (and eventually to becoming genuinely enthusiastic) by insinuating that their days with the firm are otherwise numbered. The career ladder is therefore a formidable technique for creating specific professional and personal selves with attributes and character traits useful to the firm (Grey, 1994).

Secondly, careers have always been a matter of dispute in political struggles between diverse groups of employees (Stovel et al., 1996). Career ladders have been used to regulate conflicts between employees and firms and as appeasement measures by the latter in reaction to the threat of strikes by employees (König et al, 1985). Policies favouring salary progression, seniority rules, or retirement pension systems are used by management to privilege some employees (in return for their loyalty and ideological support) and to discriminate against others. Often these policies are reactions to demands by certain groups of employees who participate actively in this struggle by making demands at the political level or in union-employer negotiations. At times, organisational structures are used to exclude specific groups

from particular trajectories and the rewards linked to them. Theories of *social closure* define it as “the process by which social collectivities seek to maximize rewards by restricting access to rewards and opportunities to a limited circle of eligibles” (Parkin, 1974: 3). Applied to careers, only individuals possessing certain traits would be eligible for certain positions and allowed to enter a coherent and fully linked career pathway within a firm.²⁵ Historically, mainly women (and married women and mothers even more so) have been excluded from a career by such formal and informal mechanisms (Christe et al., 2005; Wecker et al., 2001).

Mechanisms and Structures

As commercial and industrial firms in the late nineteenth century grew in scale and scope, they needed new methods of organisation and control (Chandler, 1990). A promising solution to this problem was *horizontal* and *vertical differentiation* of the organisation. As Chandler suggests in his historical examination of the American case, the intertwined dynamic of scale and scope is different from one-dimensional growth with a simple extension of the span of control (Chandler, 1990). In other words, it was not that the units grew in size, but that the number of units increased. This would have had two consequences: first, control of each unit became necessary, and, second, it led to the establishment of managers who coordinated the heads of the subordinated units. It is only because of this specific, simultaneously functional and hierarchical differentiation that careers can have a direction and be ordered in vertical terms.

In addition, an occupational trajectory consisting of a series of "clearly defined offices" (Hughes, 1937: 409) is not possible if such *formally defined positions* are not generalised; according to Weber, it is only in the bureaucratic firm that the positions occupied by the employees are neatly defined and bound to specific competences and responsibilities (Weber, 1972 [1921]: 127). Compared with pre-modern organisations, this corresponds to abandonment of vague, general job profiles and an increase in specialisation that allows people to conceive of an occupational life as continual movement from one such defined position to the next. An absence of clear definition of a position would make it difficult for the individual to determine whether a move points upwards, downwards, or towards a hierarchically equal position.

²⁵ Of course, Parkin's theories of social closure apply above all to the society as a whole. By analogy however, they can also be applied to organisation, where very similar movements of structural opening and closing include or exclude certain groups,.

In contrast to prior types of job allocation, in the large-scale bureaucratic firm people are recruited and promoted according to so called *meritocratic mechanisms* (Offe, 1970): The employees have to be formally qualified and the promotion is based on a combination of formal educational credentials, seniority, and an evaluation of performance by a superior (Weber, 1972 [1921]: 127). These criteria are distinct from "innate" or "ascriptive" criteria such as age, gender, origin, or social relationships; however, the boundary between ascriptive and meritocratic is not always clear-cut. Certain of the so-called ascriptive mechanisms, such as, for example, personal recommendation or seniority, have simply been considered adequate and legitimate ways to "measure" and "evaluate" merit at a certain historical period. The definition of a legitimate criterion of recruitment and promotion results from the struggle between the actors involved. By consequence, the procedures to measure merit evolved quite dramatically in the last century, namely towards individualisation of measurement. Seniority, for example, is still quite an approximate and collective measure, while contemporary methods of personal controlling are aimed far more at individuals and their supposed performance.

However, achievement careers have not been merely a somewhat auxiliary product of bureaucratic organisation. They have been quite explicitly promoted by normative discourses and different types of *structural support for career*: Employees in large-scale bureaucratic organisations were promised a career. Under certain circumstances—when they fulfil certain above-mentioned rational criteria—employees are promised to be moved regularly and upwardly in the firm. In addition, such orderly, loyal, and upward moves are supported by certain material and psychological rewards (Weber, 1972 [1921]: 126-127). Erikson and Goldthorpe, for example, write that career jobs are potentially linked together by "salary increments on an established scale, assurances of security both in employment and, through pension rights, after retirement, and above all, well defined career opportunities" (Erikson & Goldthorpe, 1992: 41-42)

The Bourgeois Family Model

I assume that the bourgeois family model is an important complementary structure in the male achievement career. In other words, an achievement career is functionally not thinkable without a family model that discharges men from domestic tasks and the raising of offspring.

The principle of "interdependent" or "linked" lives is central to life course sociology (Elder, 1995: 111). In a nutshell, this school of thought says that "personal actions have consequences for others, and the actions of others impinge on the self" (Elder, 1995: 112). Elder shows that across functional, emotional, or material interlocking relationships the lives of spouses, generations, soldiers, and, in general, all types of "social worlds" or "networks" depend on each other. The interdependence of the lives of two married adults is among the strongest of such links. It is therefore plausible that certain male trajectories are—by means of functional or power-related links—typically bound to certain female trajectories, and vice-versa. Historically, it seems that the male achievement career emerges only at a moment when a bourgeois family model, assigning the women an exclusive housekeeper-role, spreads out to the middle classes and the working classes. But even if descriptively the emergence of the male achievement career were closely paralleled by the emergence of a male breadwinner and female housekeeper family model, the causal steps that led to this situation and the role of the male career in this dynamic are difficult to explain.

In the 1950s, the dominant sociological paradigms thought of this gendered division of work by a couple as simply "natural" and "functional", because it helped to maintain the group. The leader of the group, the man, was responsible for the economic achievement of the family and therefore was assigned the role of assuring its economic survival by creating income in the labour market. The wife, a specialist in integration of the group, was supposed to see to the participation of all members of the family, reduce difficulties and conflicts, and ensure the quality of the relationships within the group (Parsons & Bales, 1955). This view has in the meantime been largely criticised and abandoned because of its naive, ahistorical, and patriarchal reification and legitimisation of male authority.

In the last decades, it has been replaced by a greater variety of *conflictualist*, *culturalist*, and *functionalist* theories on the link between male trajectories and female housekeeping, which I would like to briefly present.

A first approach is based on the *functional* requirements of achievement careers. It considers that, in comparison with other types of occupational trajectories, achievement careers require a particularly high intellectual, emotional, and temporal investment from those who pursue them. In the early career the candidate has to show his commitment, enthusiasm, and "potential" in order to be chosen for further promotion (Grey, 1994; König et al., 1985). This

often means long hours of overtime, evening, and weekend work. It is in addition difficult for them to “switch off” after work, to relax and think of other things than work. At later stages, when people have risen in a firm, this investment often does not lessen. The social pressure and responsibility that go along with these positions require even more engagement and are said to be psychologically more difficult to digest. Potentially, such a constant, highly time- and energy-consuming engagement comes into conflict with the investment required by the starting of a family and the education of children. The "solution" that imposed itself historically to this trade-off between occupational and familial engagement was the bourgeois family model. The husband works a hundred and more percent, pursuing a career, while his wife organises the social and family life, raises the children, and maybe is engaged as a volunteer in her "spare time".

Structurally this model is also the result of the exclusion of women from the labour market. In almost all Western countries, in the early 20th century "women", particularly "married women" and "mothers", have been the target of political and legal campaigns against "double earners" and subsequently excluded from the paid workforce (Ziegler, 1996). Women concerned by these policies were often working in the public service (Christe, 2005) or in qualified positions, with built-in career prospects (König et al., 1985). This means that structurally, male careers and female housekeeping are linked not only by direct interaction in the couple, but also in a broader sense: the exclusion of women from qualified positions enhanced the career opportunities for men in general.

Culturally these structural changes are paralleled by the establishment and subsequent generalisation of two social figures: the exclusive male breadwinner and the exclusive female housekeeper (Magnin, 2002; Joris, 1990). In a pre-modern context, not yet separated in a production and reproduction domain, the tasks assigned to these two roles have been more equally and more ambiguously distributed between the sexes. It was the bourgeois household that introduced a separation between familial and occupational work and a subsequent sexual differentiation between roles of housekeeper and breadwinner. In most of the Western countries, this model has then been more and more *democratised*, so that not only the entrepreneur or the public servant but also the worker could feed his family by his wage. Magnin writes that "in the 1950s it became a sheer question of male honour, to feed a family alone and to assure their basis across the exchange of work force against wage. It was this that

legitimated the position of the husband as the family head" (Magnin, 2002: 392).²⁶ Similarly, the figure of the housewife was fostered in a long process by moral and political discourse (Joris, 1990) and became a model for women of all classes in the 1930s. At the beginning of the twentieth century, the milieus that aspired for an upward career were also those who most rapidly adopted these bourgeois styles of life, probably not the least because they could increasingly afford it (König et al., 1985).

The Conceptualisation of Structures

In structuralist and constructivist approaches, social structures are considered to shape individual agency. The exact mechanisms, however, by which structures influence behaviour are not always clear. In other words, in a differentiated modern society different kinds of structures of actions of groups and individuals are variously forming. The structure of the Swiss political system is probably primordial for the voting behaviour of Swiss citizens. It may have an influence, more indirect, however, on the daily working routines of a Scottish employee of a Swiss enterprise in Zurich, but most certainly has no relevant impact on the way somebody crosses the street in Austria or the south of Italy. The same is true of the effect of structures of the employment system and family on the behaviour (for instance, the biographical trajectories) of different groups of Swiss employees. Therefore, in order to bring together abstract historical changes in the economic field with individual behaviour of concrete social groups, it is important to *specify the relations between structure and action*.²⁷ A possible strategy consists of a hierarchisation of structure into the macro level, the organisational level, and opportunity structures.

On the *macro level*, I try to present statistically aggregated data and time-series, for example, of economic growth, unemployment, number of merger acquisitions, or—in the case of the family—average age at marriage, at the birth of the first child, or proportion of female labour market participation. These data are part of official statistics and large surveys and therefore easily available; however, their purpose is often political, and because of their abstract and very aggregate nature, they are not always very informative for the constraints and chances of specific groups. What is more, they cover the results of aggregated individual actions and not the institutional structures that determine individual action.

²⁶ Translated by F.B.

²⁷ This missing link between structure is a major problem of the „case study“ approach to the structural crisis that, after Bourdieu's et al. Study „La misère du monde“ has also reached Switzerland. Honegger & Rychner (1998), but also Honegger et al. (2002) struggle with this lack of decent conceptualisation of „structure“, which is reduced to a collection of some events and statistical trends.

On the *organisational level* I examine the organisational structures and repercussion of their changes for the careers of certain groups. In a period of economic crisis, for example, I could ask how mergers unfold, what they mean in terms of organisations, in which sectors they occur, and which groups working in the firms are typically concerned and in what way. Correspondingly, the organisational level for family structures would focus on styles of familial interaction (Widmer et al., 2003), the division of labour within the couple, or strategies for education. In a certain sense, these structures are translations of more aggregate trends on an organisational level and could at the same time explain the structural changes at the macro level and give us some hints on the possible involvement of specific groups in these organisations.

Opportunity structures, finally, are a concept developed in political science in order to understand the possibilities of political action within different institutional contexts (Eisinger, 1973; Kitschelt, 1986). The concept has already been used to examine careers (Bruderl et al., 1993). Eisinger focused on the “linkage between the environment, understood in terms of the notion of a structure of political opportunities, and political behaviour” (Eisinger, 1973: 12). These structures function as “openings, weak spots, barriers, and resources of the political system itself” (Eisinger, 1973: 12). Transposed to the issue of achievement careers, opportunity structures are the ecological constraints and chances that operate as obstacles or lubricants of career for specific social groups and can help to explain their “career behaviour” and “career representations”.

2.6 Individual Representations

In this section I discuss some conceptual tools for studying careers and formulate a theory that reconciles a phenomenological with a Bourdieusian approach to career representations. Following this, I describe what could be the typical forms and expressions of individual representations of upwardly mobile groups—concepts that I then will use in chapter 8 as sensitising concepts.

Biographical Representations

Careers are not shaped only by structural factors. They harden into cultural models, "within which individuals orient themselves and plan their actions" (Kohli, 1985: 3).²⁸ A glance at the theories of these biographical "plans" and "orientations" reveals that two schools compete with each other. One conceives of biographical representations in terms of "biographical script" that changes constantly according to the experiences of the individual (Barley, 1989; Fischer & Kohli, 1987). Here, plans, projects, and retrospections are a direct reflection of the biographical trajectory and transform themselves along with the changes and events of biography. The second sees the changing ways of thinking and acting as a product of the continual confrontation of relatively stable dispositions with changing social structures (Bourdieu, 1979; Bourdieu, 1980). This conception posits that early events are structurally more formative and continue, as fundamental dispositions, to influence the perceptions, reflections, and actions of individuals across the whole biography.²⁹

Biographical Schemes and Biographical Scripts

On the basis of the conceptual heritage of the Chicago School of Sociology, Barley describes biographical scripts as "plans for recurrent patterns of action that define, in observable terms, the essence of actor's roles" (Barley, 1989: 53). He continues, "like all scripts, careers should therefore offer actors interpretative schemes, resources, and norms for fashioning a course through some social world" (Barley, 1989: 53). In other words, biographical scripts contain collectively shared models of biography, in the form of projects, plans, or retrospective balances. These interpretative schemes, as he calls them, orient and guide the individual trajectory. Such scripts contain norms concerning the order of career stages or the age at which certain positions should be attained. Thirdly, biographical scripts contain resources, such as knowledge about the subjective opportunity structures or how one has to behave in certain situations in order to realise one's plans.³⁰

Close to the term of "biographical script" is the notion of *biographical scheme* of Fischer and Kohli (1987).³¹ Their theory, joining that of Barley in his ambition to relate the "institutional"

²⁸ Translated by F.B.

²⁹ De Coninck & Godard (1990) for example call these two conceptions the „modèle de cheminement“ vs. the „modèle archéologique“.

³⁰ I think of strategies of networking or of education.

³¹ These scholars complete the phenomenological tradition of Berger and Luckmann (1969 [1966]) by a structural and biographical component (Fischer & Kohli, 1987: 33).

to the “interactional realm”, puts particular emphasis on the temporal changes these biographical schemes undergo. They conceive of schemes as biographical orientations constituted from a concrete “present perspective”, including at once (re-)interpretations of the past and sketches of the future. Biographical schemes are thus norms and legitimate patterns that allow social actors to plan their future life in a more or less conscious way and also in a more or less detailed and temporally out-reaching way. They imply always a “double temporal horizon” (Fischer & Kohli, 1987: 31) that includes past experiences and future plans.

The past is permanently constructed and re-constructed from a present perspective; it depends on the actual problems and challenges. The biographical past also has an influence on the degree of detail with which the plans for the future are sketched and the period of time covered by these plans. Fischer and Kohli summarise this changing calibration of past and future from the present standpoint: “Biographical Schemes do not only articulate life’s time by determining which aim should be attained in which succeeding steps and which biographical stages of different life-sectors can be lived simultaneously, but the content of its objectives and its synchronically-anachronically cross-linked structure are dependent from at a time emergent present experiences” (Fischer & Kohli, 1987: 27).³²

All in all, this conceptualisation defines biographical representations as constantly changing in the course of the biography, hinging on the events and pathways of the trajectory. It highlights the importance of “endogen” (or trajectory-related) events for current biographical schemes and refuses to structure and hierarchise them.³³ There are no events or phases that are a priori more important than others. Even at later stages the biographical schemes can undergo transformation.

Biographical Habitus

Bourdieu defines habitus as “systems of durable dispositions, structured structures, which are suited to operate as structuring structures, in other words: as principles of generation and structuration of forms of practices and representations” (Bourdieu, 1980: 88).³⁴ With this definition he emphasises the relative durability of early biographical dispositions. Early

³² Translated by F.B.

³³ De Coninck and Godard (1990) distinguish endogen from exogen causal factors. They call endogen factors prior events and phases of biography which have an influence on actual events or decision.

³⁴ Translated by F.B.

socialisation experiences prevail over influences of secondary socialisation, the latter being considered a mere fine tuning of the former.³⁵ Against the position defended by Fischer and Kohli, he argues, “by difference to the scholarly estimations which correct themselves after each experience according to rigorous rules of calculation, the anticipations of the habitus, a sort of practical hypothesis based on the past experience, confer an extreme weight to the first experiences” (Bourdieu, 1980: 90).³⁶ Secondly, this conception distinguishes between “biographical dispositions” and observable perceptions, reflections, and actions that can be conceptualised as generated by the constant confrontation between stable dispositions and changing social structures.

The biographical dispositions themselves do not easily change; however, historically, the conditions of habitus-creation are rarely identical to the conditions of habitus-realisation³⁷. This is why, writes Bourdieu, social practices can be understood only “on condition of relating the social conditions in which the habitus has been constituted and the conditions under which it is being put in practice” (Bourdieu, 1980: 94).³⁸ In case of a gap between conditions of creation and conditions of realisation, the biographical representations and actions are adapted by the actor. This situation of a missing fit between the habitus and the current situation is called *hysteresis-effect* (Bourdieu, 1979: 122; Bourdieu, 1980: 104). It is this “misfit” between conditions of genesis and conditions of realisation that generates “a variety of infinitely numerous and relatively unforeseeable practices of still limited variety” (Schwingel, 1995: 64). Therefore social practices and ways of thinking can change across the biography. Bourdieu writes, “The principle of difference between the individual habitus resides in the singularity of the social trajectories, to which correspond a series of chronologically ordered and mutually irreducible determinations: the habitus [...] at each moment, structures the new experiences according to the structures produced by the prior experiences [...]” (Bourdieu, 1980: 101).³⁹ These changing representations and actions, however, are always bound to the initial dispositions acquired by means of primary socialisation.

³⁵ As for example Berger and Luckmann who write: „[...] die Inhalte dessen, was in sekundärer Sozialisation gelernt wird, mit viel weniger subjektiver Unausweichlichkeit befrachtet ist als die der primären Sozialisation” (Berger & Luckmann, 1969 [1966], 152). As

³⁶ Translated by F.B

³⁷ This case of perfect harmony between dispositions and conditions is according to Bourdieu only one possible. He explains: “*Il suffit d'évoquer d'autres formes possibles de la relation entre les dispositions et les conditions pour voir dans l'ajustement anticipé de l'habitus aux conditions objectives un « cas particulier du possible » et éviter ainsi d'universaliser inconsciemment le modèle de la relations quasi circulaire de reproduction quasi parfaite [...]*” (Bourdieu, 1980 : 105).

³⁸ Translated by F.B.

³⁹ Translated by F.B.

Ultimately, the two approaches are not fundamentally different. The questions of how and to which degree habitus and biographical schemes change in the course of biography are empirically ones. In the chapter on career representations (chapter 8), I will examine which of the two theories can better explain the biographical development of representations.

Dimensions of Achievement Career Representations

I will now focus on the substantial characteristics of achievement career representations. I will try to sum up what has been written in the literature on the subjective representations of those who pursue achievement careers. The concepts I present here will be used as *sensitising concepts* (Blumer, 1954) in order to understand and structure the empirical accounts of subjective career conceptions in chapter 8. Necessarily vague and ambiguous sensitising concepts are theoretical notions used by qualitative researchers “which in confrontation with the empirical field are concretised and thereby transformed into definite concepts” (Kelle & Kluge, 1999).⁴⁰ In the literature, the *aspiring habitus* is described by striving, the belief in progress and future, a special relationship to time, the belief in meritocracy and practical performance, and a pronounced work orientation.

Mannheim calls the will and determination to seize structural career opportunities *striving* (Mannheim, 1952). Career striving in the eyes of Mannheim is aimed at "(a) the power of disposing over things (in the form of income, salary, etc.), (b) the opportunities of exerting influence (spheres of influence, power of command), and (c) the social prestige [...]" (Mannheim, 1952: 247-248). These future-oriented dreams express themselves in slogans such as "become somebody", "rise further", or "take advantage" (Berner, 1999: 7). Other scholars, however, think that such an exclusively hierarchical conception of striving is too narrow. Becker and Strauss, for example, find Mannheim's use of the term too specific and emphasise that a number of professions, such as schoolteachers, for example, manifest a "horizontal" rather than a "vertical" striving (Becker, 1952; Becker & Strauss, 1956). Authors such as Schein finally show that ambitions can express themselves in different forms. He distinguishes between "hierarchical striving", striving for "functional competence", and striving for "autonomy and independence" (Schein, 1971).

⁴⁰ Translated by F.B.

Social groups who are on a declining collective trajectory, such as, for example, small shopkeepers or farmers, are considered to have conservative, past-oriented, and nostalgic habitus. The executive middle class in the post-war period, by contrast, is on a rising collective slope and therefore said to be *future oriented* (Bourdieu, 1979). Swedish engineers, for example, have been considered men "who look into the future" and "who are effectively doing something in order to reach their dreams" (Berner, 1999).⁴¹ Individual striving is often related to—and legitimated by—a collective project or embeddedness in the common good (Berner, 1999). In other words, by pursuing an achievement career, social actors aspire to contribute to the progress of the nation or the world as a whole; however, little is yet known about this aspect of the career habitus. It would be interesting to know, for example, whether it is biographically stable over the life course or develops only with the advancement of career.

It is likely that people who want to make a career also have an image of themselves as mobile and flexible and evaluate mobility as a positive. They are willing to a certain extent to change jobs, functions, and workplace; therefore, they possibly develop a conception of their future trajectory, which might include its rhythm, the order of different stages, and certain "projects" or "plans" in general. Certain authors postulate that career candidates have very long-term plans "where each step on the career path was planned and known in advance" (Gun & Bell, 2002: 190). Others, more careful, state that some managers have long-term strategies, but know also that they have to seize unexpected opportunities that might not correspond with initial plans (Raymond, 1982). Still others think that careers rely on a sort of a "biographical incrementalism" or "policy of little steps", because the contingency today would be way too large for long-term planning (Schmeiser, 2006).

According to certain scholars, the habitus of those making a career distinguishes itself by a firm belief in the meritocratic creed, in the principle that everybody should receive a reward corresponding to his (objectively measured) performance (Offe, 1970; Berner, 1999). They believe that only those who work hard, who have personal competencies, would be promoted according to meritocratic criteria; therefore, they perceive of the world as separated into a practical and a theoretical realm and simultaneously hierarchise the practical as the "real world" and the theoretical as kind of a "protected but useless space for dreamers". This kind

⁴¹ Translated by F.B.

of anti-intellectualism is particularly widespread among individuals who did not have a strong early education, but had to earn their way up.

Those who are pursuing an achievement career are said to have a strong orientation towards work (Vester et al., 2001): their occupational life is dominating their private life. According to Bonetti and Gaulejac, the frontier between work and leisure even seems to evaporate as such: "While most of the employees make a distinction between their work hours and their personal time, managers face a interpenetration of productive and leisure time. [...]. Their personal life is deeply inscribed into their work life and often remains subordinated to their career strategies" (Bonetti & Gaulecjac, 1982: 129).⁴² Another study of upper managers in France concluded that "among our respondents the work sphere is more than a life style, it is the life itself, because work appears as the first need and the first satisfaction of existence" (Raymond, 1982: 84).⁴³ Because almost no observations exist of the biographical endurance or transformation of this work orientation, the question will again be whether it is particularly strong at the beginning and then begins to fade away, for example, with starting a family or with entry into a later career phase.

2.7 Conclusion

To sum up this theoretical introduction, I situated myself epistemologically in a mildly constructivist position and conceived achievement career as a historically unique biographical model that is the result of the interaction between social structures and individual actions. Achievement careers are distinguished from trajectories and simple careers by the fact that they are mobile, upwardly oriented, and linked. In objective terms the different positions are sequentially linked by loyalty, orderliness, and a certain temporal rhythm. Subjectively, I suppose that those who are pursuing a career perceive it as a sequence with a beginning, an end, and a series of events, transitions, and periods. I then argue that the employment system and family structures are two factors that contribute decisively to the existence of achievement careers, but only in combination with certain career representations, such as striving, future orientation, or the belief in meritocracy. This is the rough program I will now try to specify historically and contextually. I ask whether this model existed as such in

⁴² Translated by F.B.

⁴³ Translated by F.B.

Switzerland and how it has potentially changed in the course of the structural transformation of the economic field in the last decades.

3. Research Questions

3.1 Introduction

The achievement career, such as typically sketched in the preceding chapter, is considered an emblematic biographical model of the “30 glorieuses” from 1945 to 1975.

In the 1990s, French (Boltanski & Chiapello, 1999; Castel, 1995; Menger, 2002; Bouffartigue 2001b) but also American (Sennett, 1998; Osterman, 1996; Capelli, 1999; Ehrenreich, 2001) scholars argued that the economic and social structures that shaped the post-war period had undergone dramatic changes from the mid-1970s and have led to a period of "new capitalism" (Sennett, 1998) fuelled by a "new spirit of capitalism" (Boltanski & Chiapello, 1999).⁴⁴ Formerly dominant large-scale firms would change to "lean management", organise themselves "flexibly", and align themselves with a "share-holder value orientation". According to Boltanski and Chiapello, these changes have been accompanied by new ideals and norms propagating flexibility, creativity, and individual fulfilment that are to replace the old values of security and success (Boltanski & Chiapello, 1999). Simultaneously, the 1970s are said to have been a period of major redefinition of gender relationships in cultural, political, and economic terms. Attitudes and values concerning family life and division of labour became more egalitarian (Jansen & Liefbroer, 2006), the female share of the paid workforce grew (European Union, 2008: 54), and even the division of domestic work was organised slightly more equally (Rexroat & Shehan, 1987). This social and economic emancipation of women and the transformation of traditional masculinity are supposed to have undermined the bourgeois family model.

⁴⁴ The same or an akin debate was also led in other Western countries. It is however no coincidence that the French and American contributions are the most relevant and therefore given more space in these lines. In France, as one of the most status based countries, the shock between the old and new forms of capitalism was probably greater, more visible and more noticeable than in other countries. Especially in the well differentiated field of the social science, which is shaped by status based formal hierarchies (between universities, disciplines and positions) the changes of the new capitalism were, because of this specific epistemic position, very early perceived, theorised and then also critically commented (Bourdieu et al., 1993; Castel, 1995; but also for example Bouffartige, 2001a, 2001b for specific occupational groups as the „cadre“). In the United States, although the transformation were less in a contrast to the former functioning of the economy, the changes occurred particularly early and were probably also particularly radical (Sennett, 1998; Osterman, 1996, Capelli, 1999; Ehrenreich, 2001; 2006).

The break of the 1970s is said therefore to have affected most prominently the achievement career. “Flexible capitalism”, explains Richard Sennett, “has blocked the straight roadway of career, diverting employees suddenly from one kind of work into another” (Sennett, 1998: 9). Boltanski and Chiapello say that “the fights in the 1990s therefore have the objective to eliminate to large parts the model of the firm fostered in the prior period, [...] by delegitimising hierarchy, planning, formal authority, taylorism, the status of “cadre” and the life-long careers in the same firm” (Boltanski & Chiapello, 1999: 133).⁴⁵ If we give credence to these statements, the transformation of the achievement career is not mere collateral damage, but at the centre of the transition between *organised* and *new* capitalism. In this section, I present the assumed structural changes of the economic organisation and the slow erosion of the bourgeois family model. I then deal with some of the possible consequences of these changes for careers and propose the research questions raised by this dynamic.

3.2 Presumed Changes in the Employment System

In most of the theories on the transition to the new capitalism, a crucial role is given to the transformation of the employment system. It is postulated that large-scale bureaucratic companies that have been at the heart of organised capitalism in the post-war period are thoroughly re-organised. Let me discuss the most relevant changes for achievement career.

Contraction of the Promotional Space

The first hypothesis, advanced by Boltanski and Chiapello (1999) (but see also Bouffartigue & Gadéa, 2000; Bouffartigue, 2001b), postulates that in the wake of the 1974 crisis, the increasingly individual and differentiated demands of consumers could not be satisfied any more by Fordist mass production. The increasing competition among firms would therefore lead them to rationalise further, mainly by a structurally and temporarily flexible organisation. This would have led the firms to shorten their career ladders (Bouffartigue & Gadea, 2000: 93). In fact, the less employees are pre-structured by belonging to hierarchical positions (with their duties and privileges), the more flexibly they can be assigned to new and quickly changing tasks. The reduction of the number of hierarchical levels through which career candidates can possibly move is a direct attempt at the idea of an occupational trajectory with regular promotion to the next higher level. In addition, the abolition of lower and middle

⁴⁵ Translated by F.B.

management positions would reduce the chances for young career aspirants to distinguish themselves as potential “climbers” in early career phases.

De-categorisation of Work

A second hypothesis postulates that hierarchical forms of organising work per se are replaced by alternative forms. Certain authors consider this to be the result of, among other things, new models of control that replace bureaucratic or Taylorist regimes based on direct control by a superior.⁴⁶ In particular, the organisation would substitute projects and teams for the hierarchical and divisional organisation. This could mean that employees are working on multiple projects in endless succession where a project leader, in a parallel or subsequent project, may be subordinated to one of his actual subordinates. Projects, in contrast to hierarchical organisational units, last only a limited time, they are not immediately classifiable in hierarchical terms, and the positions within them are ambiguous. Polyvalence as a new key virtue would blur the boundaries of a single task or position. In comparison with the Weberian description of the bureaucratic system, in which every job was clearly defined and assigned specific tasks, this would signify a radical change, particularly for the “situations of examination” that traditionally structure careers. Boltanski and Chiapello explain: “The examinations related to work (of selection, of promotion, of attribution of persons and jobs, of definition of salary) were strongly institutionalised in the 1960s around the organisation of long careers framed by relatively constraining collective conventions [...]” (Boltanski & Chiapello, 1999: 400).⁴⁷ As with such a new organisation of work, the positions and categories themselves are no longer clear, nor formally defined, nor enduring, and these kinds of biographical examination would become highly individualised and lose their social visibility and legitimisation. This is likely to have an impact on the foreseeability and security of achievement careers.

Re-definition of Promotional Criteria

Third, Boltanski and Chiapello postulate that we assist in re-definition of the promotional criteria to advance more individualised selection. The new criteria would rely on employee assessment systems, made possible by performance measurement technologies and a

⁴⁶ Power (1997) for example shows that principles of financial accounting are increasingly applied to the management of employees and result in a control system which at the same time gives more autonomy to the individual and measures and centralises the information, in a way that allows the management to control their employees tighter and in a more personal way.

⁴⁷ Translated by F.B.

transposition of financial controlling mechanisms to personnel management (Power, 1997). These performance-controlling systems would allow reports on the “exact” productivity of units or even individuals and make the information accessible to central management. More personal control results would be used alone to evaluate career chances and determine salary. These new methods should also accelerate the erosion of traditional promotion mechanisms, such as senior entitlement, and thus contribute to the de-standardisation of trajectories. Whereas in the case of seniority, assumptions about the average value of an individual for the firm are made—in the sense that a senior has per se more experience and knowledge—individualised measurement no longer trusts this assumption. Therefore, “contrary to the rules in use in the type of capitalism related to the ‘second spirit’, seniority has become less a factor of security than of casualisation” (Boltanski & Chiapello, 1999: 321).⁴⁸ The resulting individualisation would thus ignore continual and automatic career developments as they were introduced in the 1930s. The same is true for financial progression: salary would no longer rise regularly, but depend directly on actual performance measured by the systems of internal control. The foreseeability of salary development, which contributed to the emergence of the achievement career, would no longer be guaranteed (Godechot, 2005).

Decline of Large-scale Firms

Boltanski and Chiapello (and also Sennett) posit, fourth, that in the wake of the depression of the 1970s, large bureaucratic enterprises willing to become “lean” and more “efficient” began increasingly outsourcing services and tasks they no longer considered their core business. This is relevant to cleaning, catering, and logistics as well as to highly skilled activities like IT, controlling, and personnel. As a consequence, by the 1980s, one of the most significant growing sectors is services to enterprises. Although a very heterogeneous sector, its draught horse is the growing business of consulting, for example, in business administration, accounting, technology, and law.

These outsourcings are the assumed reason why, in the 1980s for the first time since the beginning of the twentieth century, the proportions of large enterprises of more than 500 employees are decreasing and the share of small enterprises is simultaneously growing. However, even though many of these newly “created” small enterprises are jurisdictionally independent, they often continue to depend on large firms. They have become part of webs and stable partnerships between a series of related small enterprises clustered around and

⁴⁸ Translated by F.B.

depending on one large firm. (Boltanski & Chiapello, 1999). Several consequences for the career are possible: most obviously, when large firms with long career ladders disappear, career chances are diminished and careers replaced by other forms of occupational trajectories. Second, as these webs are held together by sub-treatment contracts instead of by a common “firm culture”, careers are no longer necessary to knit the firm together; therefore, links of accountability can replace “cultural” and “personal” coordination mechanisms (Power, 1997). An organisation in the jurisdictional form of a holding, for example, as was increasingly practised in the Swiss banking sector in the 1990s, no longer necessitates a homogeneous firm culture.

New Recruiting and Dismissal Policies

Finally, scholars mention the possibility that increased competition—especially in personnel-cost-sensitive branches—changed their so-called firm culture. In large parts of the large and middle-scale firms, “communitarian”, “familialistic”, or “paternalistic” firm cultures disappeared (Capelli, 1999; Williams et al., 2001; for the Swiss case see: Mach, 2006; 2007; Widmer, 2007; Buss-Notter, 2006). Particularly in the 1990s, the pressure to increase so-called shareholder value is supposed to have mounted. This pressure would also be due to the increasing involvement of institutional investors in the management of firms. Capelli writes on this subject: “New financial institutions such as junk bonds made possible hostile takeovers of companies that were not maximizing shareholder value. Any resources that companies may have devoted to other causes, such as protecting employees from business risks, were quickly transferred to the goal of the shareholder value” (Capelli, 1999: 151). This in turn contributes to a “rationalisation” of recruiting and dismissal policies. The new politics are said to be blind to informal links between employers and employees in any kind of social responsibility or implicit contracts. It is therefore possible that achievement careers, which for a long time functioned on the basis of these implicit gentlemanly contracts, are now “rationally” ended if they do not obey a very narrowly defined financial logic.

Most of these structural changes would have led, in the first place, to poorly educated employees. Boltanski and Chiapello speak deliberately of an extension of the work regime already in place for managers to the entire labour force. However, certain of these policies are very likely to also touch ascending trajectories. It will be subject to empirical verification whether and to what degree this is true in the Swiss case.

3.3 Erosion of the Bourgeois Family Model

I have postulated that the generalisation of the bourgeois family model and accompanying exclusion of women, married women, and mothers from the labour market contributed to the emergence of the achievement career as a male trajectory. This model suited the needs of male career candidates in functional terms: they could at the same time realise their ideals of a harmonic family life, "offer" their wives the chance not to have to go to work, and invest temporally and emotionally in their careers, without being bothered by family duties or child rearing. According to family sociologists, this model reached its climax in the late 1930s and 1940s. In the immediate post-war period labour market participation by married women and mothers increased, and the figure of the female housekeeper began losing its normative force. The exact meaning and scope of this transformation, however, remains unclear. It seems that participation in the labour market by married women was mainly a working class phenomenon, while devaluation of the housewife ideal was still almost exclusively restricted to a small elite in the 1950s and early 1960s (Sutter, 2005).

The 1960s and 1970s brought a continuation and radicalisation of the trends that the 1950s had already announced. Cultural changes in the wake of the "summer of love" of 1967, "sexual liberation", the emancipation of women, and the emerging feminist critique caused the bourgeois family model to lose its dominant status. The trend was translated by family sociologists in terms of "decline of the traditional family" (Widmer et al, 2003; Kellerhals & Widmer, 2005; Déchaux, 2007; De Singly, 1993). The proportion of women, married women, and mothers participating in the paid workforce is continuing to increase and also, as a consequence, the number of dual-earner couples (Kellerhals & Widmer, 2005; De Singly, 1993). This is due partly to the rise of part-time work, which has become widespread among employed women, especially in Switzerland (Kellerhals & Widmer, 2005; Sutter, 2005). Second, it seems that during this period the cultural model of the "housewife" lost a good part of its appeal not only among academic women, but also among large parts of the middle class. While not being forced to work was something that a middle class husband could "offer" his wife in the first part of the twentieth century, the concept has been more and more devalued, until today in certain social groups it is a synonym for exploited and oppressed women (De Singly, 1993: 95). In addition, family models have been pluralised. Divorce and separation rates have increased dramatically, and a rising proportion of families are so called atypical families, that is, single-parent or patchwork families (Kellerhals & Widmer, 2005). It is open

to investigation whether these new family forms are equally "compatible" with male achievement career, or whether they might contribute, for example, because of different or even more egalitarian models of division of work in the household, to the development of alternative occupational trajectories.

At the same time, the functional necessities of achievement career have not been fundamentally altered: still, they require a relatively substantial temporal, intellectual, and emotional engagement over a long time—at the beginning in order to display commitment to the firm, and at later career stages because of the functional requirements of upper management positions. Therefore the question arises, whether the achievement career has grown increasingly incompatible with the transformed and eroded bourgeois family model, where the woman “refuses” to take care of the household and the rearing of children alone. In other words, the factual and cultural decline of the female housekeeper may challenge traditional career candidates as it undermines their ideal family model. However, confronting this challenge, many alternative strategies are obviously available. These alternatives can be grouped into two rather large and open hypotheses: the *hypothesis of non-affection* and the *hypothesis of erosion* of the traditional family model.

1. Historical accounts of the immediate post-war period suggest that, by contrast with other groups, the middle classes are hardly affected by the erosion of the bourgeois family model (Sutter, 2005; Magnin, 1998; 2002). Just as the milieus with upward ambitions were among the first to imitate the bourgeois lifestyle, they seem to be the last to be affected by its decline. It seems that the bourgeois family model has begun to fray at the margins: in the "upper margins" recent Swiss research shows that double careers are still rather marginal today (Levy et al., 2007).⁴⁹ They remain an elite phenomenon requiring an upper social background and higher education of both partners (Levy et al., 2007). On the "lower edge" it is, according to Sutter (2005), mostly immigrant working-class women who live in dual-earner couples.

I thus postulate that social climbers with a lower middle-class background are not among the first ones who put the bourgeois model in question. As it is likely that by mechanisms of homogamy and female hypogamy their spouses are not among the best educated and socially privileged, they might rather easily accept the housekeeper role. It could even be that men

⁴⁹ Results from the US. suggest that the change of family values are emerging rather by replacement of cohorts than by biographical changes of values. Younger cohorts growing up in a different structural context and among different socialization agencies develop new values about the family. See for example: Fuwa, 2004.

with career ambitions tend to “detour” the problem by selecting their partners from among particularly traditional-minded women with little ambition to participate in the labour market.

2. The alternative hypothesis assumes that the radicalised and generalised decline of the bourgeois family model does indeed affect career candidates from the lower middle class. In this case, the partners of social climbers would display transformed attitudes towards family and work and refuse to be assigned solely to the roles of mother and housewife. They would become occupationally more active and require from their partners a more substantial involvement in housework and child rearing. This could lead to the following strategies:

First, the social climbers could choose to remain single; however, because a harmonic and functioning family is a "status symbol" to those pursuing an upward-oriented career, it is doubtful that this option is very likely. Second, they could postpone starting a family until certain major career decisions have been made and the periods of greatest investment are over. This would mean that career candidates marry and have children later than average men. Third, it is possible that the insistence of the man to begin a career and the simultaneous will of the woman to participate in the labour market leads to serious marital conflicts and/or even to separation. The separation and divorce rate of career couples would therefore be higher than those of average couples. Finally, it is imaginable that the men accept the wish of their woman to participate equally in the labour market and reduce his occupational engagement accordingly. Men who in the beginning manifest a will to climb the social ladder would reduce and redirect their social striving at the moment of starting a family.

3.4 Supposed Consequences for the Achievement Career

I have postulated so far that large-scale bureaucratic organisations and the bourgeois family model are pivotal for the emergence and generalisation of achievement career. If these now begin to erode, the question is, what consequences could this have for the achievement career?

Achievement career and its transformation are the subject of a large number of theories, often of a slightly speculative and noisy nature. American economist Arthur, in a rather dramatic paper on “boundaryless careers”, explains, for example: “In sum, the old picture of stable employment and associated organisational careers is fading. A new picture of dynamic

employment and boundaryless career calls for our attention” (Arthur, 1994: 297). Kanter, in her book *When Giants Learn to Dance*, writes, “Bureaucratic - corporatic assumptions about a steady, long term rise up a hierarchy of ever more lucrative jobs give way to new realities and new expectations: long term uncertainty, the need for portable skills, the likelihood of a stab at being in business for oneself. Climbing the career ladder is being replaced by hopping from job to job. Reliance on organisations to give shape to a career is being replaced by reliance on self” (Kanter, 1989: 299). Even more serious economic historians, Jacoby and Capelli, join in with a paper called "Career Jobs are Dead". They write, “‘career jobs’ as defined by long-term, advancement prospects in the same organisation with employment practices that served internal concerns, are in decline, and their future prospects are poor” (Capelli, 1999: 148). Occasionally, rather ostentatious slogans declaring the "end" and "death" of career, are backed by more serious studies on the possible transformation of achievement career.

A first ensemble of hypotheses posits that the loyalty of achievement career has decreased in the last decades. Arthur (1994) and Arthur & Rousseau (1996) suggest that as a result of large firm decentralisation and the new dynamic of small enterprises by the mid-1980s, the dominance of the “organisational career” has been increasingly replaced by the so-called boundaryless career. They define the boundaryless career as “the antonym of the ‘bounded’ or ‘organisational’ career” (Arthur, 1994: 296). In other words, these careers imply an increasing number of shifts between different companies; they are based and sustained on “extra-organisational” networks, information, and reputation and pursued by actors “who may perceive a boundaryless future regardless of structural constraints” (Arthur, 1994: 296). Independence from organisations is paralleled by increasingly individual planning of careers, individual construction of “reputation” and “employability” across firms (Kanter, 1989), and individual forming and influencing of organisations (Arthur, 1994: 301). Hypothetically, the modern achievement career therefore now has fewer loyal trajectories and is characterised by more frequent changes between firms, positions, functions, and branches. This would create a broader variety of careers and—at least in this optimistic version—lead to the liberation of “organisation men” (Whyte, 1963 [1956]) or “cheerful robots” (Mills, 1956 [1951]) from their corporate yoke.

A second group of scholars posits that achievement career has become less and less orderly. Organisations, according to Osterman (1996), can no longer guarantee a long-term career perspective to individuals willing to climb. Resources can all of a sudden lose their value, and

strengths can suddenly become weaknesses,⁵⁰ lay-offs, or declassifications due to mergers; acquisitions and reorganisations are always possible, and career ladders are ultimately broken or replaced by alternative ways of organising occupational trajectories. This would result in “chaotic”, “irregular”, and “non-orderly” careers; not because people are realising their dreams of self-fulfilment or “constructing their individual reputation” (Kanter, 1989), but simply because they are forced to. It will then be interesting to observe the coping strategies of the affected and the alternatives that companies might propose to their de-classified or dismissed employees; this could lead to an increase in involuntary self-employment or to horizontal or project-oriented careers as “second-choice careers” or “second-chance careers”. In this sense, Dany observed that French firms proposed alternative forms of careers to individuals failing to qualify as “high-flyers” that would at least guarantee their “employability” (Dany, 2001).

A third hypothesis, based on the assertion of de-categorisation of work and re-definition of promotional criteria, posits that the large firms are constructing new models of careers that more adequately meet their needs in a world of increased competition and flexible production. Therefore “careers” in the traditional meaning would give way to a “succession of projects”. “The persons would not pursue careers anymore, but move from one project to another, their success on one project would allow them to move to other, more interesting projects. Each project being the occasion to meet people offers the possibility to be appreciated by the other and to be called for other businesses” (Boltanski & Chiapello, 1999: 144).⁵¹ Projects are not hierarchically ordered, and the positions among and within them are subject to constant negotiation, so that it becomes difficult to evaluate the “hierarchical direction” of the move—justice more and more takes on a local character (Boltanski & Chiapello, 1999: 141). However, these new ways of organising successful trajectories offering freedom, personal development, personal self-fulfillment, and adventure. This to the disadvantage of security which is—because of growing flexibility of the organisation and radical subordination under policies of shareholder value—no longer something companies can promise their future managers. Specifically, this kind of new trajectory lacks a linear hierarchical ordering between career positions. It could also slow down career rhythms, because people remain longer at one specific hierarchical level where the individual is moving horizontally between several projects without being promoted to the next higher level.

⁵⁰ The most famous example is « seniority » which in the traditional bureaucratic company signified experience and know-how and within the “lean and mean firm » quickly can change into “old” and “over-qualified”.

⁵¹ Translated by F.B.

3.5 Research Questions

The hypotheses I have presented are in no way strict alternatives that I will be able to test independently from each other, respectively *against* each other (as would be the case in a strictly Poperian setting of falsification). It seems that it is not yet clear what exactly is going on and competing groups of scholars with clearly delimited hypotheses have not yet emerged. Therefore, my intention is to take a first step, to examine them jointly and clarify their content with the present study. Second, the hypotheses are empirically grounded in the French and North American economic fields. This raises the question whether they also apply to the Swiss case. Indeed, some of the factors contributing to the erosion of the achievement career are probably not present the same way in Switzerland, such as the de-categorisation of work or the re-definition of promotional criteria. Inversely, the modern sectors of Swiss industry have evolved in a strongly international context (Bernegger, 1990).⁵² Therefore, certain of the structural changes are common to all western societies and would in all these contexts impinge similarly on achievement career. Be that as it may, in order to understand the Swiss reality I have to “go back to the first field” and scrupulously examine what happened here. This can be different from or comparable to what occurs in France or the United States. In the best of cases, the French-rooted hypothesis can be a helpful compass.

In order to understand the Swiss situation, the first bundle of research questions are rather descriptive. I seek to describe the shape and rhythm of objective and subjective achievement career in the last decades. Career being objectively a "series of status and clearly defined offices" (Hughes, 1937: 409), I want to know what achievement careers look like in sequential terms. Through which portals do career candidates enter, across what intermediary stages do they pass, and which positions do they attain in the autumn of their occupational life? This interrogation is related to the question of the rhythm of career and the typical duration of each of the spells. In order to understand achievement careers as "typical sequences of positions" (Hughes, 1937: 410), I want to know whether they vary rather freely and chaotically or if they can be reduced to a smaller set of typical trajectories. If they are reducible to a small number of typical trajectories, I would like to describe the positional sequences of these types, as well as their degree of loyalty, their orderliness, and their rhythm. Subjectively, according to the definitions of Hughes (1937) and Schütze (1983), I am interested in the individual interpretations and sub-divisions of the occupational trajectory:

⁵² Swiss economy has may even reinforced its internationality in the course of the “globalisation” during the 1990s.

Are the people making a career conceiving of their jobs as a linked sequence? Which events, transitions, and phases are in their eyes relevant for their career? Are these events and phases the same for all social climbers, or can I observe significant differences among certain sub-groups?

A second series of questions looks at structural changes in Switzerland in the period from 1970 to 2000. I shall take up the hypotheses on changes in employment structures developed in the French context and apply them to Switzerland. The first question focuses on the relative influence of the different crises on achievement career in Switzerland: is the depression of 1974/75 the major break, as it is always presented? Or is it only the crisis of the 1990s that first affected better qualified employees? Or do I have to break away from the concept of a sudden, crisis-like irruption altogether and preferably speak of a slow and creeping erosion process? Second, I would like to verify the series of postulates that have been made on the structural changes of the employment system: Can a shortening of career ladders be observed, a de-categorisation of work, a decline of large-scale firms or new recruiting and dismissal policies? I am keen to know whether these changes do occur and, if yes, at what historical moment. Finally, I seek to understand what they mean in a Swiss context, historically distinct from the French context.

A third set of questions concerns the individual representations of career. I am first interested in the content of these representations: What are the plans, projects, and retrospective balances of people pursuing achievement careers? What are the major phases, transitions, and events of the career? (see also chapter 2.4). Inspired by sensitising concepts (chapter 2.6), I also ask for conception of time and progress of career candidates, their conception of meritocracy, or their conception of the articulation between work and family. I seek to understand their principles of justice and how they combine family life and occupational life. Second, it is asked whether and how these representations are changing in the course of biography. Do the biographical representations remain relatively stable over the life course, as suggested in the concept of habitus, or do they change according to the events and phases of the trajectory, as presumed in the notion of biographical scheme? Third, I am eager to investigate whether these representations vary depending on type of career, cohorts, or other social dimensions.

The fourth interrogation deals with the economic crises of the 1970s, 1980s, and 1990s and how they have affected the dynamics and perceptions of careers. I seek to identify typical patterns of involvement; can a small number of groups be identified who are concerned by the "crisis" in a typical way? If yes, what, then, are typical forms of involvement? Is it, for example, unemployment, a decrease in orderliness. or just an abstract feeling of menace? What are the characteristics of these groups in terms of cohort, career type, social origin, and economic sector? How does each of these groups interpret what is occurring to them, and what are their typical reaction strategies? Are they rather defensive—in order to save a certain standard or privilege—or do they consist of an offensive and proactive reaction?

More theoretically, I would like to deepen my understanding of career mechanisms. What is the exact dynamic of the interplay between social structures and individual representations? Are careers a kind of automatic programme that unfolds according to the biographical habitus as acquired by primary socialisation? Or is it a contingent phenomenon that depends heavily on events, phases, and representations? Which choices and decisions are critical for the further course of achievement careers? Can we observe reversibilities or irreversibilities in structural or representational terms? Are structures and representations reinforcing each other, or can certain representations "undo" or at least reduce structural constraints?

In a nutshell, at the centre of my curiosity is not the achievement career as such. It is the achievement career as an emblem of a period said to be ended by a relatively abrupt break. Second, when examining the crisis of a single element at the heart of an economic regime—as the achievement career has been at the centre of the post-war period—one might get a deeper understanding of the transition as a whole. In this sense, the transformation of the achievement career in the ideal case reflects larger changes and contributes to their understanding.

4. Research Strategies and Methods

4.1 Introduction

In this chapter I present the strategies and methods I employed in order to investigate the research questions, including questions of theory, categorisation, data, sample, and generalisation procedures.

In the first part I present how careers have been methodologically handled in two fairly different approaches: in mobility research and in the Chicago School of Sociology. A comparison of the two shows that there is no "one best way" to career research; both approaches make interesting contributions. They are also complementary, even though the bridges between them are rather rare. I then argue that recent methodological advancement may have narrowed the gap between the two perspectives. Progress in the analysis of sequences, as well as in the combination of qualitative and quantitative methods, allows me to use elements and ideas of both traditions for my approach to Swiss achievement careers. In the final section of this methodological chapter I present the methods and the data I used, including secondary analysis of survey and census data. I also carried out a small survey by questionnaire and conducted a series of qualitative interviews with a small sub-sample of this survey.

4.2 Strategies for Tackling Careers Empirically

Career research has historically been divided into two theoretical and empirical strands: as an affix of the social mobility approach, and as a central concept in the Chicago School of Sociology, in studies of immigration, urbanism, and work. Not only were these two approaches fuelled by different research questions, they also developed different answers in terms of categorisations, generalisation, and conceptualisation of sequentiality.

The Individual Approach to Social Mobility

American sociology of mobility was founded by Lipset and Bendix (1952; 1959) and then dominated by the idea of status attainment by Blau and Duncan (1967).⁵³ Lipset and Bendix were interested in the rate of mobility and wanted to measure the openness of society by separating “pure” from “structural” mobility (Lipset & Bendix, 1959). These ratios were used in a comparative perspective and led finally to the “universalism thesis”, arguing that increased social mobility is common to most of the industrialised countries. With the emergence of new methods such as path-analysis, Blau and Duncan, particularly, took stock of the question of factors explaining mobility and the mechanisms that structure the flows of mobility. In fact, what they call the process of status attainment is an analysis of how certain variables (typically the status of the father or the educational credentials of ego) influence occupational achievement and how they modify the effect of social origins on these achievements (Blau and Duncan, 1967: 9). The scholars of social mobility traditionally distinguished between inter-generational and intra-generational mobility; therefore, the concept of career necessarily came into focus in the individual mobility approach: it was seen as the mechanism by which individual mobility occurred during the occupational life.

Blau and Duncan defined career as movement triggered by personal and individual motivations of “achievement” (Blau & Duncan, 1967). On one hand, this assumption was based on industrialism theories that posited that mobility was less and less influenced by structural factors, such as family or educational systems. On the other, the striving for success itself was seen as a sort of an anthropological trait of Americans. Duncan and Blau therefore conceptualised social structure essentially as a gradual vertical stratification of occupational positions. Whereas in the beginning these positions were supposed to express prestige relations, it later became a simple hierarchy that mirrored the work standards or the general level of rewards associated with an occupation (Goldthorpe, 1985). The two ideas together resulted in a conception of career as individually motivated movements on a gradual occupational scale.

⁵³ Astonishingly, the first serious book about the mobility was written by Sorokin, an at the time still recent Russian immigrant, whose background clearly rooted in European sociological tradition (Sorokin, 1927). Sorokin presented a theoretical model of mobility that integrated structural and individual factors and had a keen eye on the structural agencies of reproduction as the family and the educational system. Although often cited as a major milestone, the ideas of Sorokin had no influential posterity in the American social mobility literature (Cuin, 1993).

This simple modelling of mobility and careers allowed them to investigate a large number of individuals by survey techniques at a national level (Blau & Duncan, 1967; Cuin, 1993). Categorisation by occupation, especially, allowed them to put a label on each person and facilitated analysis, as this information was included in the census data. But it also provoked a series of quite fundamental critiques, for example, aimed at the conception of the occupational status-scale itself. Critics said that occupations alone are not actually a significant measure of the social position of a person and that the social meaning of an occupation can vary widely according to its context, such as the type of firm, the economic branch, the professionalisation of the occupation or the historical perspectives of the occupation (Goldthorpe, 1985: 178). The considerable heterogeneity of these categories and the historical changes they underwent weaken the explicative force of the status attainment paradigm. Secondly, scholars queried the idea that the achievement of individuals is influenced exclusively by individual characteristics such as, for instance, social origin, educational credentials, or race. However, job allocations do also depend on an employer's decision or on job characteristics; it is even probable that the dominating mechanism of job allocation (individual or structure) differs according to the type of enterprise (Stinchcombe, 1959). By consequence, they suggested that structural mechanisms such as the structure of the labour market or the organisation should be taken into account as complementary explanations (Baron & Bielby, 1980).

Methodologically two instruments dominated: the table of mobility and models of path analysis. Tables of mobility are contingency tables that put in relation either the occupation of the father with the occupation of the son, or, in the intra-generational perspective, the occupational position of an individual with his occupational position at a later moment in his life. It allows calculation of mobility rates and, by comparing the margins with the corresponding case, so-called inflows or outflows (Cuin, 1993: 116-118). In this way careers are conceptualised only as a comparison between two (or three) points in the life course. Later, path-analysis models were introduced by Blau and Duncan (1967) to examine the "causes" of mobility. However, they also failed to grasp careers in a sequential sense: trajectories are considered only in the form of the position at one moment as a sort of causal explication at a later moment. Spilerman declares: "In that paradigm [the status achievement paradigm] the emphasis is on assessing the effects of characteristics prior to labour force entry (e.g., intelligence, education, father's SES) on an individual's occupational standing and earning in later life. Little attention is given in that literature, though, to the linkages which

exist among jobs; in short, work positions are not views as components of coherent career lines” (Spilerman, 1977: 552).

All in all, careers have been rather an accessory concept in individual mobility research; even more importantly, this school had serious difficulties in conceptualising careers. Their theorisation was largely astructural and ahistoric, and their too-simplistic categorisation comprehended very heterogeneous groups, a fact that casts doubt on their generalisation by large surveys. Most importantly, however, they were unable to conceptualise careers differently from comparisons of two or three points in time and therefore lost sight of the career as a sequence of events.

Neo-structural Critiques: Class, Labour Market, and Organisation

By the middle of the 1970s, the dominance of the status achievement/status attainment paradigm had increasingly been challenged by neo-structural theories of mobility and stratification. These scholars sought to reintroduce structural mechanisms and explanations in order to explain mobility and career and were organised along three distinct, yet overlapping lines of research (Carroll and Mayer, 1986): class (Goldthorpe, 1980), segmented labour markets (Doeringer & Piore, 1971; Kalleberg & Sorenson, 1979; Althausen, 1989), and organisation (Baron & Bielby, 1980). The most fruitful approach to career research was certainly organisation theories; nevertheless, class and labour market theories also made some interesting contributions.

The authors of class-based structural approaches were interested in class formation by mobility processes and only slightly changed the research strategies and the methods used by individualist mobility research; they requested a return to mobility tables, coupled with an alternative, more class-sensitive way of interpretation (Goldthorpe, 1985). Sociologists of labour market, such as the second sub-group of neo-structuralists, stated that “the labor market is divided into two distinct sectors with little mobility between them” (Kalleberg & Sorensen, 1979: 356). One of these segments offers high wages, satisfying working conditions, and long-term perspectives (for example, in the form of upward careers), while the second lacks these attributes and offers no long-term perspectives. Doeringer and Piore postulated that in the primary, core, or internal labour markets, firms established “lines of progression” where “work on one job develops the skills required for the more complex tasks on the job above it, and those at one point in the line constitute the natural source of supply

for the next job along the line” (Doeringer & Piore, 1971: 58). Empirically, however, these scholars were so occupied with finding evidence of such segmentation of the labour market that their contribution to career research was ultimately negligible.

With their programmatic paper “Bringing the Firms Back In” in 1980, Baron and Bielby founded a third strand of research that argued that single organisations “link the “macro” and “micro” dimensions of work organisation and inequality” (Baron & Bielby, 1980: 738). The following (and partially preceding) research on organisation was more heterogeneous than class or labour market research but included sequential careers for the first time. Studies—often conducted in large, bureaucratic firms such as public administrations—investigated mobility with much finer instruments and categories (Gitelman, 1966; Spilerman, 1977; Van Maanen, 1977; Rosenbaum, 1979; 1984 Grandjean, 1981; Fligstein, 1987). They were able to categorise jobs or supervision levels in relational terms and examined, for example, the influence on individual advancement of age, seniority, or informal factors (for example, local networks), which was not possible with large population-based samples. As a trade-off, these scholars often had to limit themselves to specific economic branches, to specific occupations or professions, to certain geographical areas (cities, states), or to a series of firms, and were no longer able to draw conclusions at a general, nation-wide level. However, the limitation in scope allowed them to code the positions occupied by individuals more adapted to the specific context and therefore to reduce the heterogeneity of categories that systematically casts doubt on the possibility of generalisation of large surveys.

Studies of single firms, especially, used a wider range of methodological tools. A particularly rich source of information, also historically, are the personnel records of firms that allow grasping the movements of the entire workforce of a firm over long periods. Gitelman (1966), Rosenbaum (1979), Grandjean (1981), and Stovel et al. (1996) all rely on these kind of data, although they used different methods to exploit them: Grandjean, for example, in his study on white-collar civil servants in the U.S., applied an *extended status-attainment model* (inspired by Blau and Duncan) to data from personnel records for three different cohorts and included supplementary variables such as seniority, type of branch, or the region of employment. Rosenbaum (1979), as an alternative approach, used *stochastic models on personnel records* to study careers in large U.S. enterprises. Thanks to a theoretically supported Markov chain, he was able to calculate a promotion rate according to biographical age, educational level, and period. Gitelman (1966), in an early study in 1966, analysed the personnel records of a watch

company from 1860 to 1890 and tried to grasp careers by calculating indicators of tenure, number of changes, and the nature of changes of employees. All these examples show that homogeneous categories and the detailed and contextually anchored nature of organisational data shed light on aspects that remain hidden in larger census or survey data.

The structural critics possess the merit to have shown that careers cannot be conceptualised as individually motivated movements up a one-dimensional occupational scale. As a kind of accessory product of their limitation on structures, they had to limit the scope of their samples. As a result, they have overcome certain of the problems of categorisation and of sequentiality: The more specific categorisation have become samples limited to single organisations or occupations, the closer this research approach comes to socially meaningful categories and a sequential conceptualisation of occupational trajectories. At the same time, since these approaches are increasingly limiting themselves to single organisations, they tend to lose sight of the general question of career mobility, limit the possibility of generalisation, and are, for example, no longer able to understand careers across organisations. Increasingly, the structural approach turns into a sociology of organisation, which loses sight of the individual trajectory.

Careers as a Legacy of the Chicago School of Sociology

From the beginning the Chicago School of Sociology successfully articulated the structural with the individual aspects of career without denying its sequential character.⁵⁴

The concept of career, used to conceptualise several phenomena of life course, is a terminological successor of the concept of "life history" and thus almost constitutive to the Chicago School of Sociology. By the 1920s and 1930s "life history" was used as a concept to relate empirical observation to theoretical concepts (Thomas & Znaniecki, 1958 [1918]). Career quickly emerged as an alternative, slightly narrower concept that allowed them to understand the sequential trajectories of individuals in a large variety of fields. In tune with the social problems of the rapidly growing and changing city, Chicago sociologists focused on immigration, delinquency, and social exclusion. Even though "career" was a general concept that could be applied to different kinds of sequential social processes, it was made most notorious by Everett Hughes and his students between 1940 and 1960 (Hughes, 1958). In the

⁵⁴ For a comprehensive overview of the institutional and theoretical development of the Chicago School of Sociology, see: Bulmer, 1986.

wake of Hughes's work, occupations and professions became a particularly important and fruitful domain of study. The contributions of Hughes's heirs were twofold: on the one hand they wrote studies about single occupations and the careers individuals typically pursued within them. Examples are Hall (1949) on medical careers, Becker on Chicago school-teachers (1952), Becker, Geer, Hughes, and Strauss on physicians (1961), as well as a series of more exotic studies about army generals (Reissman, 1956) and funeral directors (Habenstein, 1955). On the other hand, they tried, foremost in later years, to generalise and theorise their studies, as for instance in Becker on career contingencies (1952), Becker and Strauss on careers and socialisation (1956), and Hughes on career cycles and turning points (1958).

Hughes and his students used the term *career* to conceptualise social reality as a result of the interplay between structure and action. According to Hughes "a career consists, objectively, of a series of statuses and clearly defined offices [...] subjectively, a career is the moving perspective in which the person sees his life as a whole and interprets the meaning of his various attributes, actions, and the things that happen to him [...]" (Hughes, 1937: 409-410). In comparable terms and by insisting on the linkage between objective structures and subjective meaning, Goffman declares on the same topic: "[...] one of the values of the concept is its two-sidedness. One side is linked to the internal matters held dearly and closely, such as image of self and felt identity; the other side concerns official position, jural relation, and style of life and is part of a publicly accessible institutional complex. The concept of career, then, allows one to move back and forth between the personal and the public, between self and its significant society" (Goffman, 1961: 127). These definitions show that the career conception of the Chicago Schools was theoretically far richer than either the individual or the structuralist notion of career in traditional mobility research.

The interactionist concept of career can potentially include all dynamics composed of a series of statuses or positions; the most well-known use of career by Becker, for instance, is about marijuana smokers' careers and the different identities linked to this process (Becker, 1963). Unlike the use of career in the sociology of social mobility, the Chicago sociologists extended the term to non-formal, to horizontal, to downward, or even to not hierarchically ordered trajectories. For them, vertical careers were only one specific type among a large number of possible types of careers. Much of the effort, for example, of Becker and Strauss (1956) was spent on showing that the formal bureaucratic career model presented by Weber or Mannheim

was “oversimple”. As an answer to their formal conception of career they declared, “posts at any rank may be filled from the outside; people get frozen at various levels and do not rise. Moreover, career movements may be not only up but down or sideways, as in moving from one department to another at approximately the same rank” (Becker & Strauss, 1956: 254). In an attempt to falsify the postulates of the sociology of social mobility—also too simple in their eyes—they showed that prostitutes start their careers at the top of their fame to descend in the hierarchy as they grow older (Shaw, 1966 [1930]); that teachers do not strive for a formally better position but for “horizontal movements” to schools with students who were easier to cope with (Becker, 1952); that informal status and positions, achieved only through very subtle and hard to measure interactions, undermine the supposed clear-cut formal hierarchies (Becker & Strauss, 1956). And finally, as opposed to mobility research, they were interested in the interpretations and strategies of the actors making careers. They showed, for example, that a social rise can be psychologically very hard to handle (as it involves dissociation from former identities and social networks) or that not everyone (particularly not every American) always wants to move quickly to the highest possible level (Becker & Strauss, 1956)

Compared with the sociology of mobility, either in its individual or structural variety, the approach of the Chicago Sociologists was far more cautious, tentative, and bottom-up. They often studied only a single profession in a geographically limited area; Becker, for example, studied the careers of schoolteachers in greater Chicago, and the jazz musicians in the same town (Becker, 1952; Becker, 1963). Occupations and professions were studied as exemplary cases rather than by representative samples. This implied a different understanding of generalisation. As Barley put it, “for Chicago sociologist, generalizability was initially a substantive rather than a statistical issue, valid theoretical assertions can only emerge from, and must therefore remain grounded in, an understanding of the particulars of a variety of settings” (Barley, 1989: 46). This meant maximising the contrast between the unities of analysis in order to explore the space of the possible and then to repeat the analysis among very similar units of analysis, in order to corroborate the outcomes (Glaser & Strauss, 1967; Strauss & Corbin, 1990). Even though this method of “theoretical sampling” does not allow calculating proportions, rates, and numbers of incidents, it permits substantive explanation and generalisation of the social mechanisms, social meanings, and social strategies that are typical in the investigated fields.

Methodologically, the studies of the Chicago sociologists relied heavily on ethnographic approaches, as participative observation or interviews. Hall's study (1949) on medicine and Becker's (1952) on the Chicago Public School teacher were typically based on about 50 non-structured interviews. If possible these were combined with participative observation, although the study of careers necessitated a retrospective orientation, and past events and phases in an individual's trajectory can best be approached by interviews. These retrospective accounts of careers allowed the researchers to include informal career stages and the subjective interpretation of a trajectory, which are difficult to understand by quantitative coding of positions. If these individual evaluations are interpreted carefully (and not taken for the "objective truth" as such) they can reveal rich information on the interplay between structures and meanings. In contrast to statistical procedures, the narrative interview techniques used by the Chicago School sociologists were very well adapted to grasping the sequential structure of career. Descriptions of careers in the form of "narratives" allowed them to construct schemes of sequences and to organise these as typical clusters with the help of qualitative strategies of typologisation (Kelle & Kluge, 1999). The symbolic interactionists could not only describe the typical sequentiality of careers, they were also able to explain the mechanisms of career, going beyond the too often too simple causal assertions of variable sociology. By integrating the changing identities of individuals and their reaction to their environment they were able to uncover the complicated processes behind that causal relationship.

In comparison with the sociology of mobility, the methods of the interactionist tradition are better suited to understanding sequential phenomena. In addition, their theoretical conception overcomes the division in "individualist" and "structuralist" traditions, overshadowing mobility research. On the other hand their procedure of "substantial" or "theoretical" generalisation failed to convince certain parts of the scientific community and finally remained somewhat limited in scope. Its scholars restricted themselves to the study of occupations and professions, often without theorising the role of these groups from a more macro-sociological angle. In other terms, symbolic interactionists never linked their concepts of careers to broader theories of mobility. Not the least because of epistemological and methodological incompatibilities, the two traditions never cross-fertilised each other and the socially upward-oriented "achievement career" as such has never been studied by interactionists.

4.3 Methodological Advances

The separation of career research in mostly quantitative mobility research and a qualitative profession research reflects only the methodological tribalism of post-war sociology. Beyond abstract epistemological or methodological choices, the differences are related to preferences concerning samples (representative, economic sector, organisation, profession), methods of generalisation (statistical vs. substantial), types of categories (abstract vs. contextual), types of operationalisation (formal vs. informal), theories (functionalism vs. interactionalism), and questions (macro vs. micro).

These choices can be understood as a series of trade-offs, sometimes due to a lack of resources and sometimes owing to logical incompatibilities; the restriction to single organisations or professions, for example, improves the adequateness of categories, but causes problems of generalisation at the same time. Relying on large surveys enhances the chances of statistical generalisation, but weakens the homogeneity of categories and makes it difficult to conceptualise careers as sequences. Most of these problems may have no one best solution; the decision for a specific research strategy has to depend on the questions that are at stake. However, in recent years advances have been made with the potential to loosen some of these Gordian knots.

In this section, I will discuss two of those innovations that I believe to be very useful for further development of career research. Optimal matching analysis, first, allows for studying larger samples in sequential terms and constitutes a very promising alternative to regression models and stochastic methods. What is more, I present some mixed-method designs that enable me to use each of the forces of qualitative and quantitative research in a powerful and complementary way. These “new”—and at the same time “old”—combinations may contribute to a loosening of the boundary between quantitative mobility research and qualitative career research that I discussed above.

Sequential Analysis of Careers

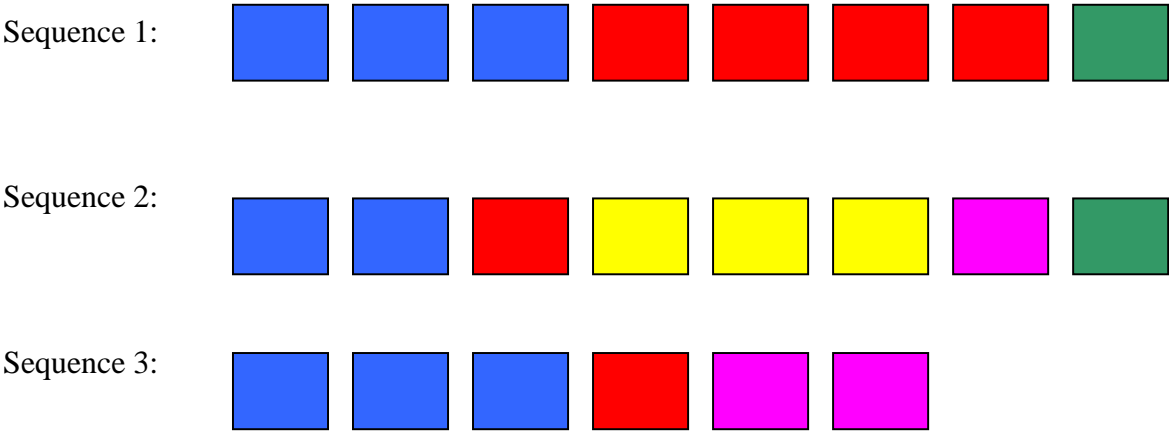
Optimal Matching Analysis originated in biology, where it is used for genome sequencing. In the late 1980s, it was imported to social sciences, most prominently by Andrew Abbott (for more detailed accounts, see Abbott & Hrycak 1990 ; Chan, 1995 ; Aisenbrey 2000). It allows analysis of a large number of trajectories in sequential terms, comparing their distances, and

organising them in the form of clusters. The method has been applied to a large variety of phenomena, for example, the history of lynching in the U.S. South (Stovel, 2001), historic careers of musicians (Abbott & Hrycak, 1990), entry into the labour market (Brzinsky-Faye, 2007), the familial trajectories of Swiss men and women (Widmer et al., 2003), occupational careers within a large English bank (Stovel et al., 1996), and careers of female executives (Blair-Loy, 1999). In the following section I shall explain how optimal matching works, on which theoretical assumptions it relies, and how it stands with regard to the above presented sociology of mobility and the career notion of symbolic interactionism.

Basic Principles

Optimal Matching Analysis makes it possible to compare sequences of states that may have variable lengths or durations, in terms of their degree of resemblance; it imposes few restrictions on the number of states or periods. Fig. 2 illustrates how individual sequences are compared pair-wise by determining for each pair the minimal number and type of operations needed to transform one sequence into the other, the three possible operations being *insertion* of a supplementary element or state, *deletion* of an element, or *substitution* of one kind of element for another.⁵⁵

Figure 2: Insertion, Deletion, and Substitution within Optimal Matching Analysis



In the present example, sequence 2 can be transformed into sequence 1 by inserting one blue element, by substituting 3 yellow for 3 red elements, and by deleting 2 violet elements. This means that 8 elementary actions are required to transform sequence 2 into sequence 1 (substitution = deletion + insertion). In order to transform the third sequence into the first one,

⁵⁵ This demonstration is inspired by Levy et al., 2007.

I can substitute 2 violets for 2 reds, insert 1 red, and insert 1 green. This equals 6 elementary actions (2 insertions and 2 substitutions). As a consequence, sequence 1 is more different from sequence 2 (8 actions) than from sequence 3 (6 actions).

Each of these operations can be taxed or weighted by a specific cost. The sum of these costs in comparison of sequences measures the “distance” between them. The costs of the three operations are set by the analyst for each analysis. In principle, there are three options for cost setting : First, to set substitution costs to 1 and INDEL to 0.5, namely because the substitution corresponds logically—if not semantically—to the combination of deletion plus insertion. Second, to use differential costs according to a theoretical model of the difficulty or heaviness of various substitutions or transitions. This means that the costs for transitions that appear more challenging are higher; for instance, the cost of rising to upper management would be higher than the cost to move to technical management. Third, to differentiate costs according to (inversed) empirically determined relative frequencies of transitions (considering more frequent transitions to be less costly than less frequent ones). Experience shows that the basic algorithm is relatively robust with respect to costs; cost matrices have to be very different in order to generate clearly different results.

Application to Careers

In several papers, optimal matching analysis has also been applied to modern occupational trajectories (Chan, 1995; Stovel et al., 1996; Halpin & Chan, 1998; Blair-Loy, 1999). A review of these studies reveals some of the forces and weaknesses of this approach, compared with traditional career research.

Chan’s first paper is more of a technical finger exercise, with only 37 individuals whose criteria of selection remain unclear (Chan, 1995). Halpin and Chan (1998) use two large samples, the Irish mobility study 1973/74 and the British household panel. They conceptualise careers in terms of spells of class membership, coded according to the seven category class scheme of Erikson and Goldthorpe (1992). This scheme uses very general categories, such as “professional and managerial”, “routine-non manual”, and “farmers”. These are very comprehensive and therefore heterogeneous categories, created to come to grips with the social structure as a whole, and they struggle to conceptualise careers. The category “professional and managerial”, for example, puts together a large number of different functions (financial, engineering, marketing, human resources, etc.), in very different

economic sectors (wood industry vs. private banking) and in very different types of firms (family owned, stock listed, large-bureaucratic, small-flexible, etc.). Knowing that movement from “farming” to “professional and managerial” is rather rare, it might be smarter to shed a brighter light on the detailed mechanisms of typical mobility pathways than to cover the whole society with rough and socially meaningless categories. This example shows that although (one-dimensional) optimal matching based analysis is sensitive to sequences, it is not much better suited to solving categorisation problems than traditional mobility research.

Blair-Loy aimed at a very specific group—women in top executive jobs of large financial corporations—and as well had a rather limited sample of 56 individuals at her disposal (Blair-Loy, 1999). The problem with her approach, aside from sample size (which might better be exploited by qualitative methods, as she also does), is that it is based on a group who had already achieved a top position. If this is an appropriate way to describe the variety of female careers leading to the top, it struggles to illustrate the shapes of the trajectories of those who at one moment of their career had the wish to rise but failed on the way.

The paper by Stovel et al. is based on the complete historical employment record of Lloyds Bank; therefore, the sample is large (2,418 male clerks who joined the bank between 1890 and 1939) and complete, however restricted to one single organisation. The study demonstrates the succession of different career systems over three cohorts of Lloyds’ clerks, from a system based on tenure to a modern, mobility-based achievement career supported by organisational structures. While the analysis on the organisational level is closely linked to demographic and class-related reflections and sheds light on historical transitions—how new careers are built by using pieces of the past (Stovel et al., 1996: 392), it remains at the level of one single organisation. No matter how “typical” or “representative” Lloyds Bank was of the bureaucratic service company at the beginning of the twentieth century, such an analysis can cover only one specific type of mobility and loses those who quit the bank at one moment or another. It thus shares the problem with structural approaches to mobility that by concentrating on one organisation, one loses sight of individuals and their potential shifts between companies.

All these papers overcome the ignorance of sequential linkage of careers that has been typical of traditional mobility research. The examples also show, however, that the problems of sampling and of categorisation remain the same with optimal matching analysis.

Multi-Channel and Training Costs

Very recently these basic methods of optimal matching analysis have been extended, thanks to the efforts of a team of researchers at the university of Lausanne and Geneva (Gauthier et al., 2008a; Gauthier et al., 2008b). In *Multi-Channel Sequence Analysis* each individual is associated with two or more distinct channels, each taping a distinct life trajectory (work, family, health, etc.), or a distinct dimension of one trajectory (for the occupational trajectory, for example, function, position, firm size, sector, etc.) “The goal is to compare the channels of two individuals while taking into account the simultaneous contribution of each pair of channels to the overall similarity between to individuals” (Gauthier et al., 2008b: 6-7). Secondly, the same team of researchers has also improved the attribution of substitution cost by an iterative training procedure that produces a substitution cost matrix based on empirical substitutions. Gauthier et al. explain: “[...] this amounts to generating matrices whose purpose is to optimally summarise the information contained in the sequences. In this context, the alignments and the matrix can be viewed as two alternative models of the relationships among sequences” (Gauthier et al., 2008b: 14). This method of empirically generating substitution cost can improve and replace theoretical or mixed theoretical-empirical estimation of costs that have been used to date (Gauthier et al., 2008b).

In particular, the multi-channel technique is an important contribution to improve the problems of categorisation common to most individual studies of career and mobility; to date, a position such as “middle management” can mean socially rather different things, according to context (Baron & Bielby, 1980). In a heterogeneous social space, such as, for example, the economic field, a technical middle manager in a small or middle-sized, family-owned company selling vacuum cleaners is different from a finance-related middle manager in an international banking company, not only in terms of salary, power, and life-style, but also mainly in potential future trajectory embodied in the two positions (Boltanski, 1982). A single indicator of social position such as sector or function often makes no sense when it is analysed in an isolated way. Boltanski writes, "Each of the dimensions makes only sense related to all the others and everything happens as if the genuine social sense could be compared to an implicit system of conditional probabilities, allowing to cumulate and coordinate a very large number of small pieces of information, which in an isolated state are not necessarily meaningful" (Boltanski, 1982: 377).⁵⁶. With multi-channel sequence analysis,

⁵⁶ Translated by F.B.

it is possible to approach the organisational space as a configuration of a series of indicators and to increase the validity of the concept of “position”. In other words, careers are conceptualised as sequences of “combinations of positions” (on several dimensions, such as sector, function, type of firm, etc.) that are socially more meaningful than one-dimensional categorisations.

To summarise, optimal matching analysis makes it possible to understand large, quantitative samples in sequential terms and therefore dissolves the trade-off between statistical generalisation and sequentiality. Multi-channel sequence aligning is an additional contribution to the problem of acontextual categorisation; it takes into account the contextual meaning of hierarchical position and therefore allows conceptualisation of careers as a sequence of configurations of positions and functions.

Integration of Qualitative and Quantitative Methods

The “mixed-methods” approach is constitutive to modern social sciences (and has, for example, been widely used in the Chicago School of Sociology) and survived the whole twentieth century without having been labelled as such. By the 1960s, however, American sociology was increasingly tribalised into "quantitative" and "qualitative" sub-fields, with its respecting “paradigm soldiers” (Tashakkori & Teddlie, 1998). In recent years, the rising up of interdisciplinary traditions has rendered systematic advancement in the combination of quantitative and qualitative methods again possible. It is no wonder that one of the epistemologically thoroughly founded and most convincing contributions to the exploration of possible articulations stems from the field of interdisciplinary life course study (Kluge & Kelle, 2001).⁵⁷ Mixed methods are particularly well suited to conceptualising careers as interplay between structures and representations. In addition, its sampling methods help to reduce the trade-off between representative samples and contextual categories and explanations.

⁵⁷ In recent years the so called „mixed method“ approach has become a trend in the Anglo-Saxon universe of social sciences. A large amount of papers and books have been written on the subject and there is now even a journal on the topic – see for example: Tashakkori & Teddlie (1998; 2003) or Onwuegbuzie & Leech (2005). In contrast to these rather rigid and unpleasant attempts of systematization, the ideas of Kelle and Kluge are more specific and embedded in epistemological reflections. In addition, they have developed their approach explicitly in life course research, at the „Sonderforschungsbereich 186“ on „Status Passage and the Life Course“ of the university of Bremen (for an overview, see: Heinz, 1991).

Kluge and Kelle identify two suitable moments for method integration; the first is sampling. In the model, propagated, for instance, by Barton and Lazarsfeld, qualitative pre-studies were used to explore the most salient dimensions of comparison to be included in the quantitative sample (Barton & Lazarsfeld, 1979 [1955]). In addition to this approach, Kelle and Kluge think that statistical surveys can also inform and reinforce the validity of qualitative sampling processes, such as, for example, the procedure of theoretical sampling (Strauss & Corbin, 1990). A quantitative pre-study can be used to test the relevant dimensions of comparison and minimise the risk of not discovering dimensions that may be important to the study of the phenomenon under investigation (Kluge, 2001: 47). As a concrete example, they present a study of the female life course between occupation and family, where biographical patterns were identified by optimal matching analysis and the resulting clusters used as the basis for qualitative sampling.

The most important combination mechanism, however, concerns the analytical phase. At this stage, Kelle and Erzberger (2001) relate quantitative and qualitative research in terms of “convergence”, “complementarity”, or “divergence”. In the case of convergence, a theoretical assertion covered by an empirical observation with one method is confirmed by an observation made by the mean of another method. This procedure enhances the reliability of the initial theoretical assertion, the methods used, and the employed data. For instance, the statistical result that biographies of men during the golden post-war years were characterised by continual and regular employment can be validated by qualitative interviews, in which the respondents emphasise the importance of occupational work for the construction of their identity (Kelle & Erzberger, 2001: 105). Complementarity means that the methods shed light on different but complementary aspects of a phenomenon, “producing a more exhaustive and more appropriate picture than would have produced the use of one single method” (Kelle & Erzberger, 2001: 107).⁵⁸ This articulation is particularly useful when socio-demographical variables are associated with and integrated into causal models with quantitative methods, but the mechanisms of correlation cannot be explained empirically. For instance, correlations between social origin and highest education can easily be established with statistical methods, but are then often difficult to explain theoretically. In order to avoid the use of unverified “heuristics of daily custom” (Kelle & Lüdemann, 1995) in such cases, it is useful to use qualitative methods in order to examine preferences, norms, dispositions, and goals of actors. Thirdly, quantitative and qualitative data can diverge. In other terms, the outcomes of the two

⁵⁸ Translated by F.B.

approaches do not coincide or even contradict each other. In this case, explanations attained by the use of one method can be employed to interrogate the other and finally to improve it. This may result in a reformulation of theoretical concepts or a re-adaptation of categories used in the process of research (Kelle & Erzberger, 2001).

These "advances" of mixed-method strategies respond in a very direct way to the challenges by which career research is confronted: two-step sampling processes combining survey and interview techniques allows to improve generalisation, while the different strategies of joint analysis improve validity and contribute further to reconciliation between structures and individuals.

4.4 How to Analyse Achievement Careers in Switzerland?

To approach achievement careers in Switzerland I sought to combine the strengths of mobility research with the Chicago School of Sociology, by use of the possibilities the presented methodological innovations offered me. At the center of my approach is a specific sampling method. This method, based on the wish to make a career, responds to the fact that in contrast to supposedly static social groups such as "working class" or "women" or "artists", "achievement careers" are per se more intricate to grasp with sampling techniques. I first discuss the research and sampling strategies I adopted and then draw a more detailed picture of the groups I will study.

Research Strategies: The *Wish* to Make Career as Sampling Criterion

In order to study achievement careers, an obvious sampling strategy would be to concentrate on those who have succeeded and to construct, for example, a sample of successful middle managers or higher executives. This approach is widespread in elite sociology: in this perspective, scholars choose a sample of firms (most commonly the Top 100, the Top 500, or those quoted on the stock exchange) and study the CEOs or board members of these firms (Hartmann, 2002). However, in a biographical and historical perspective, this is problematic. As I assume the attainment of higher positions is still strongly linked to a certain age, a sample composed of those who succeeded (success measured by their achievement of position in middle or upper management) would include only older individuals and therefore prevent a comparison over cohorts. Second, this concentration on the top 100 firms or stock market

listings biases the perspective on the economic field and excludes smaller companies, less modern firms, or particularly discrete business sectors (Bourdieu, 1989). Especially in Switzerland, whose economy is characterised by division into an international and highly competitive sector (banking, pharmaceuticals, mechanical industry) versus a protected domestic sector (König, 1996), such a sampling strategy would be problematic. Finally, to understand the unfolding of careers, it is not without interest to include those who, in spite of having ambitions (at one moment of their career), do not succeed. The study of their loopways and the mechanisms that led them to leave a pathway to which they once aspired, can inform us as richly about the phenomenon as the study of successful career itself. All these problems with conventional sampling methods led me to sample “ambitions” rather than “careers”, or the “endpoints of careers”. In other words, *I seek to study achievement careers by examining a group of people who express at a certain moment of their biography the wish to climb socially by means of an occupational career.* The career is described in the literature as a biographical project (Schmeiser, 2006) of which the individuals become conscious at the moment of the choice of education or occupation. Therefore, I assume that this wish to make a career is likely to appear at the beginning or at least in the early phases of the occupational career. This is why the career wish as a sampling anchor allows me to compare different cohorts—age classes who still expressed this wish rather recently, with age classes who had the same aspirations 20 or 30 years ago.⁵⁹

How can people with career aspirations be found and separated in order to study them? I argue that a promising strategy is the studies of particular professions or occupations, popularised by researchers of the symbolic interactionist school. By focussing on individuals with specific occupations rather than on organisations, I can observe their moves through different positions, functions, enterprises, and economic sectors (Abbott & Hrycak, 1990), as well as the differentiation of career over time. This is of crucial importance if I want to examine the supposed erosion of orderly organisational careers within one single enterprise.

⁵⁹ Of course this is also problematic. It supposes that this kind of aspiration is relatively stable in time, that over time the same groups have the same wishes and also that the wish to make career signifies the same thing in different historical (or cultural) contexts. However, especially in rapidly changing societies, such as Western societies in the 20th century, it is not all clear that aspirations remain the same. Just to give some example of the problematic nature of this assumption: it is possible that the groups with upwards aspirations have been historically more homogenous than they are currently; maybe they have been numerically larger or smaller compared to other groups; maybe the political and ideological support has been historically different. It is also possible that today alternative channels to the top (based on mechanisms other than meritocracy) compete with the career etc. In spite of all these objections, in this study I hope to show that it is worth relying on these underlying hypotheses. Not the least because of the disadvantages of alternative methods (specific selection bias; sample based on success, not on trajectories; difficult comparison of cohorts) it is one of the promising means to understand the mechanisms of careers contemporary Switzerland.

But how can the study of occupations be related to the study of achievement careers? As a matter of fact, certain occupations or professions are structurally linked to a quite narrow choice of possible trajectories. In other words, I think that achievement careers are linked to typical "career occupations" and that the choice of such an occupation is at the same time the sign of a certain individual "career orientation". This is because the choice of occupation, as a highly identity-bound decision, reflects the orientations and values of the individual's social milieu and translates its plans and projections towards the future.⁶⁰ I argue, therefore, that construction of the sample based on educational choices allows me to choose individuals with a specific social identity and a particular relationship to the future. Specifically, in order to study achievement careers, I seek to separate those individuals with an aspiring habitus by examination of particular "career occupations".

I put this program in practice by choosing two professional groups with an elective affinity for the utopia of generalised upward mobility. According to Schnyder et al. (2005), the majority of Swiss managers and economic leaders hold a degree in engineering, economy, or law.⁶¹ Because the number of people with law degrees in higher management posts has declined rapidly since the 1980s (Barrial, 2006), I will concentrate on engineers and business economists. Both of these are typical male-dominated career occupations, the first as the pivotal occupation of the industry, the second as all-round managerial profession of the service sector. Second, in Switzerland, the two occupations can be learned by the path of "higher occupational schools". In this curriculum people first attend an apprenticeship—in either a technical or a commercial occupation—and then, usually after some years of work, return to higher occupational school in order to launch an upward career. The decision to attend higher occupational school involves a big sacrifice in terms of time, energy, and money and is thus not only a verbal but also a practical and very reliable proof of their upward ambitions. This is confirmed by the qualitative data: with the exception of two business economists (#17, #30), they all come from a modest background, then attend an apprenticeship, feel the urge "to go further" and are currently working in middle- or higher management positions. This striving—the feeling that they want "more perspective", "to go further", "to do something interesting" or that they "do not want to end up behind a drawing-board"—is a

⁶⁰ However, it is to be taken into account that certain occupations are more narrowly related to a certain biographical plans than others. As well, the meaning of a occupation can vary with respect to the context in which it is learned or exerted.

⁶¹ Compared to business economists and engineers law is probably a specific career occupation. It is possible that it has lost - numerically - influence among higher managers, but that it has for example gained importance in intra-firm consultancy or other important functions (that do not appear in these Top 500 statistics).

central category of their identity. It determines their relationship to their family of origin (social dissociated) and to co-climbers (closeness).

A survey of a representative sample of engineers and economists with a higher occupational school degree will allow me to create a typology of typical trajectories based on the quantitative data. This typology can then be used as a sampling plan for further qualitative investigation; within each type a number of individuals will be chosen in a way to discover all the typical positions within that type, for example, in terms of age, gender, or discipline. This will allow me to explore how these people experience their trajectory individually and therefore to *complete* the structural and descriptive outcomes of optimal matching. In addition, these methodologically linked data will allow me to compare the quantitative and the qualitative approaches, in order to corroborate and mutually validate the results that coincide in both legs of the study.

HOS Engineers and Business Economists in Historical Perspective

Before presenting the data sources, I would like to more thoroughly illustrate the position and social function occupied by the two occupational groups. Let me first briefly retrace their historical emergence and development:

The Emergence of Technical and Commercial Higher Occupational Schools

In nineteenth-century Switzerland, as in the other German speaking countries, young people learned technical occupations in an apprenticeship system, still closely characterised by the handicraft tradition. Nevertheless, typically for the dual education system, apprentices completed their practical learning in the firm by general and theoretical lessons at public “Gewerbeschulen” or at schools run by the industry. To complement their practical education, in 1854 the young federal government founded the Swiss Technological Institute in Zurich. This school was supposed to produce scientifically and theoretically informed engineers and architects at a university level. In order to fill the gap between exclusively scientific and merely practical occupations, the industry and educational politicians sought to create an intermediate level of technicians who were at once rooted in the practice and theoretically informed, filling out the intermediate positions in the newly created middle management of industrial firms. As a consequence, “between 1874 and the turn of the century emerged under the designation ‘Technikum’ a series of intermediate educational institutions, which passed on knowledge, capacities and mentalities in a systematic way and constituted a quasi-

institutionalized entry to the profession” (Siegrist, 1987: 245).⁶² This group of higher occupational schools was also open to aspirants of lower classes and gives its graduates the possibility of climbing the organisational ladders of enterprises. The number of graduates grows quickly and continually: Whereas in 1880 Switzerland counted about 300 “technicians”, there were 2,000 in 1900, 7,200 in 1920, and 14,000 in 1950.

The patterns of accelerated reorganisation of the education system are similar in the commercial sector, although the institutionalisation process lags behind the technical sector. It is obvious for the institutions of higher education: Until the 1890s commercial education in Switzerland was under the jurisdiction of private firms. Because young aspirants felt increasingly dissatisfied with the quality of this curriculum, in the 1890s the Swiss association of commercial employees (Schweizerischer kaufmännischer Verband—SKV) applied successfully for a governmental funding for a collective education of commercial employees (König et al., 1985). With their intervention, the association created a dual education system in the Swiss commercial sector. Typical for the Swiss case, it was run by a privately organised association but financed by public funds. By the 1920s, this educational form was institutionalised by cantonal apprenticeship legislation. As well, privately organised institutions began to found schools delivering diplomas of higher commercial education at the beginning of the twentieth century. They offer on the one hand national diplomas of specialisation (accounting, audit, or insurance, for example) and, on the other, “courses of higher education for merchants” (Jaun, 1986; König, 1990). A total of 369 students attended the first of these courses in 1921 in Zurich, and by the end of the Second World War this number had multiplied by 10.

Differential Extension in the Wake of 1945

In the post-war period the education system grew dramatically. The growth consisted of improvement in the general level of education, expansion of higher education, and also a second wave of foundations of higher professional institutions in the technical field (Levy et al., 1997: 175-182). Higher Technical Schools were boosted and contributed to a considerable increase of graduates who were now needed in the booming industry. Between 1945 and 1970, 16 new technical higher occupational schools were founded and accordingly the number of graduates increased from 1,000 in 1960 to 2,000 in 1980 (Meyer & Ryter, 1993: 36). At the same time, the number of graduates in engineering at the university level (ETH

⁶² Translated by F.B.

mainly) stagnated during the whole period of growth from 1950 to 1965 and grew only slightly from 1965 to 1975 (from about 600 to 750 graduates per year). This means that in the technical sector, growth relied particularly on technicians and engineers from higher occupational schools. As the social origin of these technicians was considerably more modest than that of university engineers (Boegli et al., 2007), this institutional choice corresponded—at least on a formal level—to a certain opening of society and offered career promises to members of lower middle-class origin (König et al., 1985).

Intermediate education in the commercial field, between university and apprenticeship, was in the immediate post-war years still dominated by a federal diploma of specialisation (accounting, sales, banking, etc.) and higher schools of commerce (*Handelsschulen*) essentially hosted by the professional association of commercial employees (Jaun, 1986; König, 1990). The first type of specialised diplomas saw steep growth in the post-war period: whereas in 1965 1,278 students graduated successfully, this number had increased to 4,395 in 1985 (Union des banques Suisses, 1987: 251). It was also on the initiative of the professional association of commercial employees that the first higher occupational school for business administration (HWV, ESCEA) was founded in Zurich in 1968, comparable in its functions and ambitions to the technical higher occupational schools for engineers (Union des banques Suisses, 1987). In a short period of time, six more schools of this type were founded in Lausanne, Olten, Lucerne, Berne, St. Gallen, and Basel, and in Neuchâtel and Geneva after 1980. In 1971 they were attended by 333 students, a number quadrupling in 1985 to 1,244 students (Union des banques Suisses, 1987: 252). Later, federal and cantonal governments began to integrate and sponsor these courses. This resulted finally in the foundation of higher occupational schools for the commercial sector (HWV; ESCEA) from 1968 on, in an attempt to create an educational path comparable to the higher occupational schools for technicians. On the university level the first chairs of “business administration”, called HEC (Hautes études commerciales) or Betriebswirtschaft, were established around the turn of the century (Jaun, 1986) and experienced extraordinary growth after the Second World War (Honegger & Jost, 2007; Barrial, 2006).

To sum up, the Higher Technical Schools and Higher Commercial Schools have historically distinct trajectories, but they were founded with similar goals: they grew out of a wish to establish an intermediate level of education between university and apprenticeship. More specifically, they should allow a certain proportion of apprentices to continue their studies

without having to pass through the system of grammar school and university. New titles such as “engineer” or “business economist” predestined these people to “intermediate” positions and increased their chances for an upward career.

Are HOS Engineers and Business Economists Social Climbers?

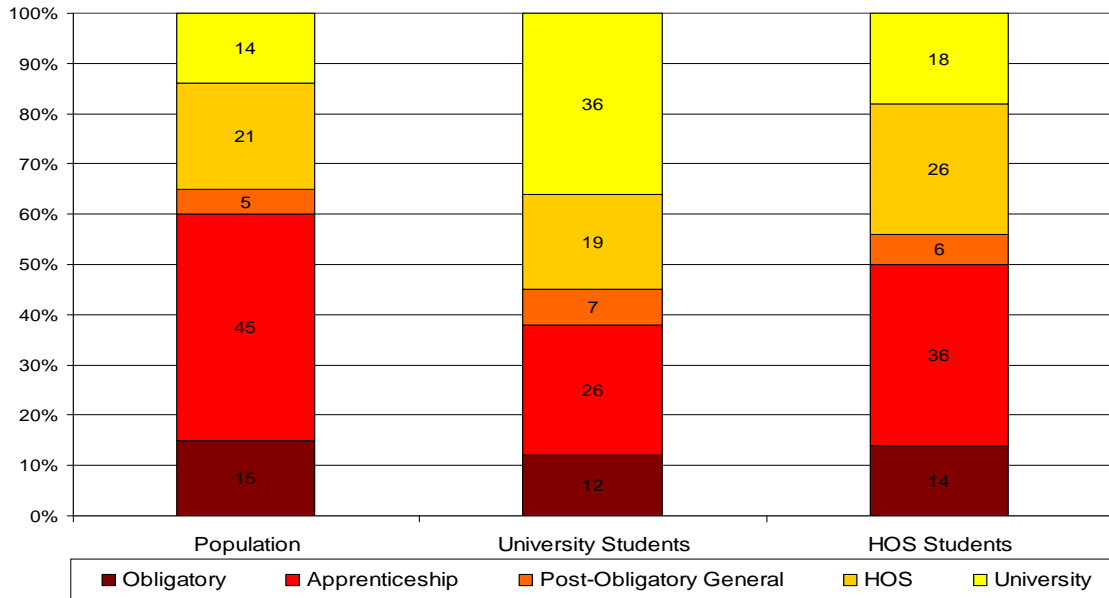
In this section, I will try to describe the two groups in a little more detail and to compare them with a selection of other social groups. I hope that I will find some elements of answers to the question of whether they merely have the will to climb socially or they effectively profit from socially upward trajectories. I first analysed their social background and then their representation in higher social positions. Whenever the data situation allows it, I integrate comparisons with university students and the global population and try to differentiate between economists and engineers. I rely mainly on data from a 2007 study by Boegli et al. reporting on the social situation of students in Switzerland, but complete it with data from the Swiss Federal Census and the Swiss Labour Force Survey.

Educational Level and Occupational Position of Parents

Comparison of the social origin of male students of higher occupational school and male university students reveals that the proportion of those with at least one parent having a university degree is almost *double* at university. Conversely, students of higher occupational school come over-proportionally from parents with an apprenticeship. The remaining categories (higher occupational education and no post-obligatory education) are approximately the same for the two groups.

Further, comparison with the population aged 45 to 64 (as a proxy for the parent-cohort of these students) yields that in terms of education, parents of university students are neatly, and parents of students of higher occupational school slightly more educated than the average population.

Figure 3: Men’s Parents’ Educational Level: Population, University Students, and HOS-Students (2005)

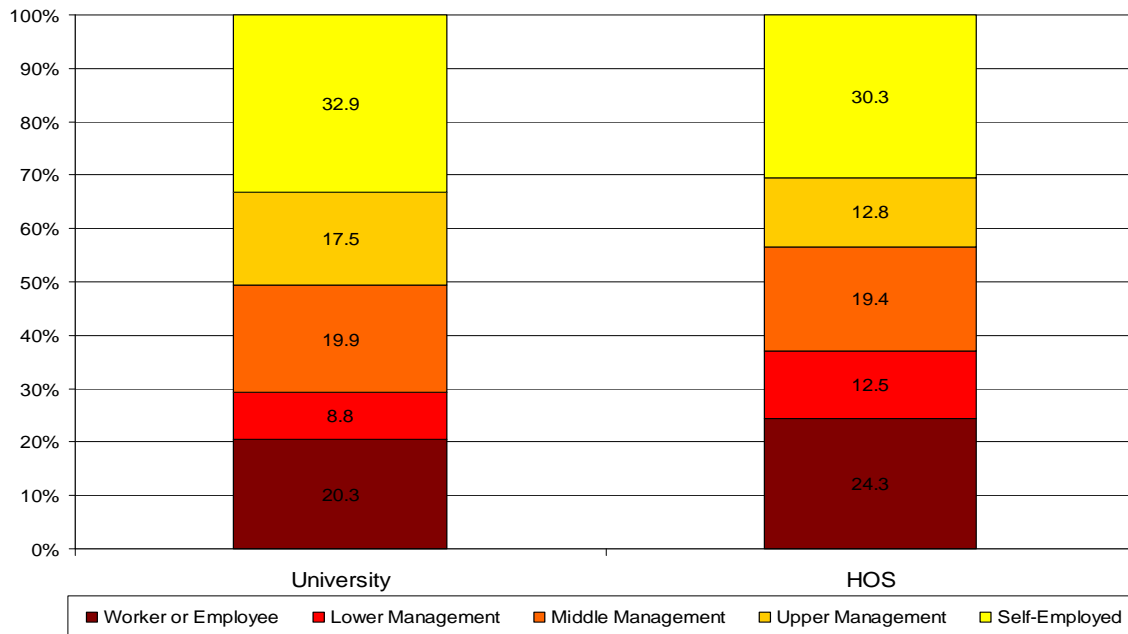


Source: Boegli et al., 2007

This means that more than university students, higher occupational schools students come from a lower and more traditional educational background. At the same time, students from higher occupational school do not stem from the “bottom” of Swiss society. They are not more frequently from families with no post-obligatory qualification than university students (or the population as a whole).

The following analyses compare the occupational situation of the fathers of students of university and of higher occupational school. The occupational categories are a modified version of the Swiss Socio-professional Categories (Joye & Schuler, 1995), based on a combination of educational level, employment status, and hierarchical position in the enterprise. They include self-employed, upper management, middle management, lower management, and worker/employee.

Figure 4: Father's Occupational Position: University Students and HOS-Students (2005)



Source: Boegli et al, 2007.⁶³

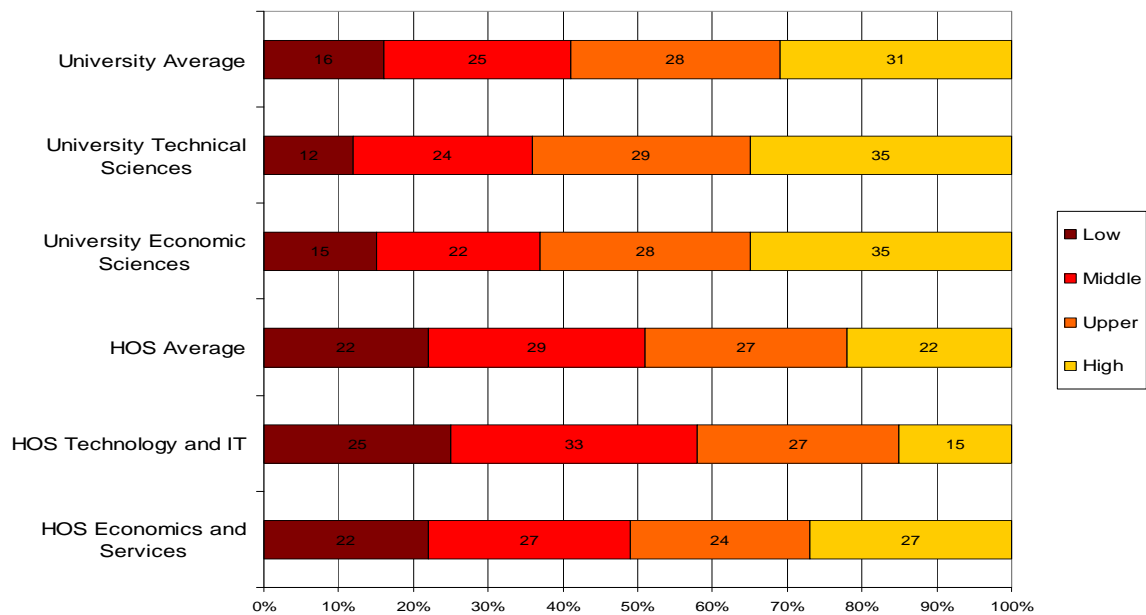
The outcome shows that fathers of university students are over-proportionally represented in self-employment and higher occupational positions. In opposition, the fathers of students of higher occupational school gain their bread more often as lower managers and simple workers or employees.

Finally, I would like to differentiate analysis by the disciplines "engineers" and "business economists", again as a comparison between university and higher occupational school. This time I employ an indicator of strata, which, as a combination of educational level and occupational position, was developed by Boegli et al. (2007).⁶⁴ It features four levels: "low", "middle", "upper", and "high". For both institutions, I compare the strata of origin of the average with that of engineers (respectively "technical sciences") and of business economics (respectively "economic sciences").

⁶³ Without those who have never been active, these are at about 0.5%. Self-employed includes those "working in the family-business" and "employed by the own firm". Upper Management includes: director, "officer with procuration" and Chief civil servant

⁶⁴ It has to be noted, that such an indicator does not exactly correspond to modern concepts of class, such as for example Erikson and Goldthorpe's or Wright's class schemes, that are mainly based on the work-relationship of individuals/ or households (Erikson & Goldthorpe, 1992; Wright, 1989). Nevertheless, I assume that they are not completely independent from each other and that a combined indicator such as the one used here says also something on the position of an individual social actor in the social hierarchy.

Figure 5: Strata of Origin of Business Economists and Engineers: University Compared to HOS



Source: Boegli, 2007⁶⁵.

The results confirm that, in general, university students are from a higher social origin. However, while students of technical science at university (or ETH/EPF) on average stem from a higher strata than students of economics, the engineers at higher occupational school level are one of the students groups with the lowest social background. HOS students of business economics come more often from a higher strata than the average HOS student.

Representation in Upper Management and Higher Salary Category

In order to understand where their ways lead socially, I examine the representation of HOS degree holders among upper management,⁶⁶ based on Swiss Federal Census data of 1980, 1990, and 2000. I calculate the proportion of people holding a certain type of degree in the category and a ratio that indicates the chances of achieving this category in comparison with other educational categories. The value for HOS graduates is standardised at one; a value greater than one means that the chance to achieve the category is higher, inversely the chance is lower.

⁶⁵ The category “University economic Science” includes National Economists and Business Administration, while “Economics and Services” at the HOS-Level does not encompass national economy. On the other hand it includes “Tourism” and some other minor disciplines, labelled here with the term “Service”.

⁶⁶ Here upper management in the sense of Socio-professional categories of Joye and Schuler (1995).

Table 1: Educational Level of Upper Management Members (1980, 1990, and 2000)

	1980		1990		2000	
	%	Ratio	%	Ratio	%	Ratio
Obligatory School	4.69	0.03	4.12	0.04	9.29	0.2
Postobligatory Apprenticeship & General	47.51	0.27	42.32	0.23	40.82	0.41
higher occupational school	22.08	1.00	29.66	1.00	22.17	1.00
University	24.56	1.47	23.30	1.28	23.32	1.28
Other	1.17	0.05	0.60	0.04	4.40	0.17
	100		100		100	

Source: Swiss Federal Census, 1980, 1990, and 2000

Both university graduates and HOS graduates are represented at a percentage of 20–25 among the upper managers. A glance at the ratios, however, shows that in comparison with their representation in the overall active population, the chances to accede to positions of upper management are the highest for university degree holders. Their chances were up to 1.47 times higher than they were for those who attended higher occupational school in 1980 and were still 1.3 times higher in 2000. On the other hand, completing one’s educational curriculum with a HOS degree after an apprenticeship triples (or, recently, doubles) the chances of achieving upper management.

Complementary analysis of the salary category “130,000“ plus” allows me to check the results against biases due to the fact that, in contrast to HOS diploma holders, university graduates may be overrepresented in public service posts that are high on hierarchical ladders but are poorly paid.⁶⁷ Equally, it acts as a control, in a certain sense, for the self-employed, who are not included in the definition of upper management. Salary is an appropriate dimension to take into account among aspects other than hierarchical position. The analyses are based on the SLFS data and include the years 1991, 2000, and 2005.

⁶⁷ However, it is clear that salary cannot be an indicator of class and milieu, which should be defined with reference to its employment relationship. Salary here is only used as a proxy, respectively because it is one of the few indicators that is available.

Table 2: Educational Level of Individuals with a Net Annual Salary Higher than 130,000 (1991–2005)

	1991		2000		2005	
	%	Ratio	%	Ratio	%	Ratio
Obligatory School	0.00	0.00	2.91	0.08	0.67	0.02
Postobligatory Apprenticeship & General	39.10	0.22	39.67	0.27	39.82	0.32
Higher occupational school	35.56	1.00	33.41	1.00	33.81	1.00
University	25.34	1.28	24.01	0.93	25.70	0.89
Others	0.00	0.00	0.00	0.00	0.00	0.00
	100		100		100	

Source: Swiss Labour Force Survey 1991, 2000, and 2005

The results do not differ fundamentally from the picture I obtained for the hierarchical position—an indication that salary level is still closely bound to occupational position for a large majority. Interestingly, the relationship between university and HOS degree holders is not exactly the same. On one hand, the proportion of HOS degree holders, at constantly more than a third, is significantly higher than for upper management. On one hand, since 2000, the chances of gaining a salary higher than 130,000 Francs seem to be slightly higher for HOS degree holders than for university diploma holders. This confirms the hypothesis that HOS graduates may not accede to higher occupational positions in the same proportion as university graduates, but it is possible that their positions tend to be situated in the private sector, where the salaries are higher.

All in all, HOS business economists and, even moreso, HOS engineers seem to come from a fairly modest background and then attain a rather high social position. In addition, it is very likely that the social backgrounds of prior cohorts has been even lower. The proximity of HOS business economists to university students in 2005 is likely the result of the revaluation of higher occupational schools in the late 1990s.⁶⁸

⁶⁸ In 1997 the system of the Higher Occupational School higher occupational school has been reformed. Higher Technical and Commercial Schools, together with Higher Schools for Social Work, Art or Music, have become nationalised and are now called „University of Applied Sciences“. In the course of the Bologna-Reforms in the early 2000s, curricula based on „bachelor“ and „master“ have been established. These further changes have approached the university-titles to the HOS (respectively now AUS) titles.

4.5 Data Sources

Analysis of Census and Survey Data

An important part of the analysis relies on the Swiss Federal Census data and the Swiss Labour Force Survey. These databases are collected and made available by the Swiss Office of Statistics. The first covers the entire population residing in Switzerland; the second is sufficiently large to serve as a representative anchor of my own, more selective survey and qualitative interviews. In the following lines, I will quickly present the two surveys, including the variables and the techniques of analysis I used.

The Swiss Federal Census

Since 1850, the Swiss Federal Census has documented the demographic, spatial, social, and economic development of Switzerland. The census is carried out every 10 years, is compulsory, and covers the totality of the persons, households, and economically active residing in Switzerland. In recent years, it has been carried out by written form, postal dispatch, Internet (4% in 2000), and, in some communes, by face-to-face interviews. From 1970 on, the individual data are available in electronic form. I dispose of the data of 1970, 1980, 1990, and 2000.

The variables are often rather basic and are not always adapted to my needs, as their main purpose is administrative and political. They include the date of birth, gender, marital status, citizenship, religion, and language. Variables such as the occupation, the educational level, or the marital status are very useful for understanding the occupational situation of engineers and economists. In a preliminary step, I isolate the groups of engineers and economists who hold a degree from a higher occupational school.

The engineers and economists with a higher occupational school diploma have been constructed by combining the learned occupation, the actual occupation, and the highest achieved educational level. For each of the two groups, an extensive list of occupations has been checked for possible entry occupations and actual occupations. In the case of engineers, for example, the entry occupations are restricted to technical and industrial occupations (mechanics, construction, drawing, etc.), while the possible actual occupations embrace a wider spectrum, including management, teaching, or personnel. Combined with the higher

occupational school filter this yields a fairly good approximation of the two occupational groups.⁶⁹

The variable “highest occupational level” is based on a six-fold operationalisation. It distinguishes between “no-educational title”, “compulsory school”, “apprenticeship or occupational school”, “high school degree”, higher occupational school”, and “university degree”. The “socio-occupational categories” are used according to the standard Swiss coding as developed by Joye and Schuler (1995). It is composed of “upper management”, “liberal professions” (meaning academic self-employed as advocates or general physicians), “other self-employed”, “management and academic employees”, “intermediate occupations”, “qualified workers and employees” and “non-qualified” workers. The marital status finally is coded as “single”, “married (including separated)”, “widowed”, and “divorced”.

The Swiss Labour Force Survey

The Swiss Labour Force Survey (SLFS) has been carried out yearly by the Federal Statistical Office since 1991. Its aim is the “recording of the employment structure and the labour behaviour of the resident population” (Swiss Federal Statistical Office, 2007). It is a telephone call-based survey of about 50,000 persons residing in Switzerland, aged 15 and more (including their households). Until 2001, however, the number of interviewed persons was only about 16,000; some of the questions of the questionnaire were modified in 2001. One part of the sample (33,000) is a random sample of the households; another part (15,000) is a complementary over-sampling of alien residents. The SLFS chiefly covers questions related to the economic activity of the respondents. It includes economic activity, the learned and practised occupation, the conditions of employment, the characteristics of the workplace, and the income and marital situation. Compared to the census data, the variables are much finer and better suited to my particular purposes. Its yearly periodicity allows me to grasp the social dynamics in a much more detailed way. On the other hand, the sub-sample of engineers and economists has a size of only 200–300 and, therefore, generalisations are problematic. The historical depth is reduced to the period from 1991 to 2006.

⁶⁹ The only problem are those who completed Higher Occupational Schoolhigher occupational school and, in addition, acquired an university degree: They will not appear among the two groups and might contribute to the fact that not all of the HOS-engineers and economists are included (this group constitutes about 3% of all HOS-graduates).

The procedure is analogous to the one I chose for the census data. I first isolated engineers and economists holding an HOS diploma and examined a series of substantial and relational characteristics of the two groups. Rather than repeating the analysis I had already made thanks to the census data, I carried out an analysis on variables that are specific to the SLFS. They include the income of engineers and economists, the intensity of work and the employment situation and educational level of the partner in the 1990s. The highest educational level is, in principle, coded also analogously to the census data. In some cases, however, for reasons of size of sub-sample, I merge apprenticeship and high school degree (into a category called “post-compulsory apprenticeship and general”). Categorisations that in specific cases differ from these general definitions will be specified in the text.

The FH Schweiz Survey and Optimal Matching Analysis

Because of the limited number of variables and their sometimes fairly rough specifications in the large survey and census data, I complement the data with a sequential survey on HOS business economists and engineers. At the beginning of this survey, I searched for a possibility to approach holders of a higher occupational school in engineering or business economy. Good accesses to this group, it turned out, were the large and relatively traditional alumni associations of students of higher occupational schools. I contacted several of them and finally worked together with the association "FH Schweiz", which had about 26,000 members in 2005.

The Sampling Process

The sampling is the result of a narrow cooperation with FH Schweiz. Together with the director and the committee of the association, I developed a sampling strategy that took into account the limited financial means at my disposal, the membership structure of the association and the possibility to access its members.

To begin with, I restricted the potential sample of 26,000 members by exclusion of sub-groups who did not fit my needs or whose inclusion would have involved a disproportional amount of supplementary work. I first excluded the members who graduated after 1995 because of the short duration of their careers. Second, I excluded all occupations, other than

economists and engineers, that possibly have been a part of the database of FH Schweiz⁷⁰. Finally, I removed the members living in the Italian-speaking area of Switzerland because their questionnaire would have caused supplementary costs. Retired persons, in contrast, have been kept in the sample; they are indispensable to understanding the careers of older cohorts.

All of these operations reduced the initial sample of 26,000 members to about 15,000. As I aimed at a final sample of about 1000 individuals, I decided to send questionnaires to 5000 individuals—a number compatible with the budget at my disposal. I evaluated different modes of passing the questionnaire: the e-mail dispatch, even though inexpensive, had to be disregarded because a considerable number of e-mail-addresses of FH Schweiz members were lacking. In addition, prior experiences showed that the return was slightly below the one that can be expected for a dispatch by mail. By consequence, I chose to join the questionnaire with the journal *Inline*, which the association publishes every three months. This solution gave me the possibility to accompany the questionnaire with an article in the journal, explaining the objectives of the study and giving the potential respondents some indication of how to fill it in⁷¹.

With no indications about the approximate structure of the sample, I opted for a systematic sampling combined with some supplementary restrictions due to the practical selection of the sample. Because the French speaking part is strongly under represented,⁷² I decided to include them all. The questionnaire was joined with the August 2005 issue of *Inline*. The respondents were given two months to complete the questionnaire. Two weeks before the closing date, I sent a supplementary reminder by e-mail to the ones whose addresses I had. They had also the possibility to accede directly to an electronic version of the questionnaire by accessing a direct link indicated in the email.

⁷⁰ At the time the association, that formerly was the result of a fusion of a series of regional engineering and business-students associations, was opening itself to all the disciplines that can be studied at the University of Applied Sciences since 1996. This can include disciplines as social work, nursing or art, even though this disciplines are traditionally not organized in the same way and contribute therefore only in small proportion to the membership of FH Schweiz. In the case of the technical disciplines this concerns in particular architects.

⁷¹ The article is available in Apendix 4.

⁷² For historical reasons they amount only to 600 of 27'000 members in the association.

*The Questionnaire*⁷³

The questionnaire is divided in four sections (see appendix 1). The first section covers the educational trajectories of the respondents. To shed light on the pathways leading to higher occupational schools, I asked for the year of graduation of apprenticeship/high school.⁷⁴ To record the educational trajectory, I asked for post-graduate studies, federal diploma, and university degrees. Each question addresses the year of graduation, the name of the institution, and the specialisation. The most important questions, however, concerned graduation at the higher occupational school, including the year of graduation, the name of the institution, and the disciplinary specialisation.

The second and most essential part of the questionnaire dealt with the occupational trajectory. It was constructed as a modular, calendared questionnaire consisting of 11 possible modules, each describing one occupational stage. The respondents were asked to note the chronology of their work life from graduation to the present year (2005). I requested that they indicate shifts between and within firms, the latter only if they included a change of position or function. At the beginning of each module, I asked the years of the beginning and ending of the occupational stage and the employment status (employed, self-employed, and non-employed) during this stage. Then, according to the employment status, one of three sections followed: if the person was employed, he or she was invited to indicate whether he or she had changed firms, the precise designation of the job, the occupational position, the firm unit, the activity level, the size of the firm in Switzerland, the jurisdictional status of the firm, and the economic sector of the firm. Because several of these items tend to be rather heterogeneous in reality, most of the answers were formulated as closed responses. If the respondent were self-employed, they were asked to indicate the economic sector of their company and the number of employees. And finally, if they were non-employed during a certain period, I asked them to note the reasons for their non-activity.

The third section dealt with the conjugal trajectory of the respondents. I asked them to give details about each conjugal relationship longer than six months, beginning with the actual or latest and then going back to the previous ones. This included the moment of major conjugal events, such as the beginning of the relationship, the foundation of a common household,

⁷³ The raw data of the questionnaire were ceased by Mr. Dominik Etienne. His work was founded by a grant of the „Fondation 450ème“ de l’université de Lausanne. I would like to thank the Fondation 450ème for its generous support and Dominik Etienne for his careful and sometimes painful work.

⁷⁴ Indicating the orientation of the curriculum, for example natural sciences or ancient languages.

marriage, separation, divorce, and widowhood. In addition, I asked them to indicate the number of children they had as well as the children's years of birth. To close the questionnaire, I added a few socio-demographical questions; apart from the gender and the year of birth of the respondents, I asked them for the highest educational title, the precise occupation, and the employment status of their parents.

The Sample

The response rate, in spite of the supplementary reminder by e-mail, remained at 9% (N=442). Such a low response rate is problematic and puts the reliability of the results into doubt. On one hand, the low number of respondents prevents multivariate analyses; on the other hand, more problematic even, it puts rather severe doubts on the representativity of the sample and the possibility to generalise the results. I therefore try in a first step to explain the potential reasons for the low rate; I then try to compare its structure with other, more reliable, data; and finally, I will try to comment on these weaknesses whenever I present the results.

How can this unsatisfying rate be explained? I think that the main reasons for this are problems common to every postal survey. Compared to a face-to-face interview situation, it is easy to ignore or overlook the questionnaires and to throw them away, as the non-answer does not have to be justified like it would in a personal interaction. In addition, in this special case, the questionnaire was not only a "normal" postal questionnaire but was joined to a journal. This has may even reinforced the lack of interpersonal pressure and augmented the ease with which the respondents turned away from the questionnaire. Due to the lack of money, I was not able to promise any material or immaterial incentives to the potential respondents. What is more, the economists and engineers are a specific social group. Because they—or at least some of them—are pursuing a career, they are potentially particularly busy in their occupational lives. This may result in a lack of time and energy to fill out the questionnaire, worsened probably by the high number of inquiries of all sorts they are confronted with in their jobs. It is finally not excluded that the rather uncommon type of questionnaire scared away some of the potential respondents. It is also not precluded that some of the willing respondents "failed" to fill the questionnaire without assistance.

As a consequence of this weak response rate, I cannot claim representativeness in a statistical sense. To gain an impression of the quality of the data, I compare them to the data of the Swiss Federal Census, as shown in Table 3.

Table 3: Composition of the Sample in Regard to Gender, Cohort, and Employment Status

		Engineers		Business Economists	
		FH Schweiz	Swiss Federal Census	FH Schweiz	Swiss Federal Census
Gender	Men	98.8%	96.7 %	79.9%	68.0%
	Women	1.2%	3.3%	20.1%	32.0%
Cohort	50 +	34.2%	35.8%	9.6%	25.3%
	40–50	37.9%	29.2%	32.1%	29.0%
	30–40	28.0%	35.1%	58.2%	45.6%
Employment Status	Employed	85.1%	79.9%	91.6%	86.9%
	Self-employed	14.9%	20.1 %	8.4%	13.1%

Source: FH Schweiz-Survey (2005) and Swiss Federal Census (2000)

The table shows that engineers are fairly well represented in the FH Schweiz Survey; the cohort aged 40 to 50 is slightly overrepresented, the cohorts from 30 to 40 are slightly underrepresented, and the self-employed are slightly underrepresented. The situation is not so bright when it comes to business economists: First, women are underrepresented in the FH Schweiz Sample. Compared to the 32% of women in the Swiss Federal Census, the 20% in the FH Schweiz is almost 10% less. Several reasons may explain this. First, the statistical categories of education of the Swiss Federal Census are rather rough and include the code “business economists”; also, some occupations are at the margin of this field, such as “tourism”. These female-dominated sub-fields of what is called “business economists” are not present in the FH Schweiz sample and contribute, therefore, to the lesser proportion of women. Second, the statistics of the Swiss Federal Census are based on educational statistics and include everybody holding an HOS degree. By contrast, it is thinkable that only women partaking in the paid workforce will respond to a questionnaire on “career”. Second, it is also possible that women, because of their “objectively” lesser chances to make a career, are also less interested in a career and, therefore, participate to a lesser degree in surveys about careers. These two selection biases might contribute further to the difference between the FH Schweiz Survey and the Swiss Federal Census. The 20 and 32% of women, respectively, among business economists is problematic. As mentioned before, when choosing engineers and business economists, my intention was to select “male occupations”, which are on one hand connoted as male and on the other hand dominated numerically by men. The structure of the sample shows that engineers obviously are gradually “more male” than business economists. This can be a problem because female careers are supposed to follow completely different patterns than male ones, and the relationships between family and occupation are different for men and

women. Because I did not want to reduce further the already small sample, I decided to keep the female business economists in the sample and to split samples along the gender line when came it to particularly sensitive analysis (see chapter 5). This decision has not been evident. It has been facilitated by the idea that the women who took part in the FH Schweiz Survey were probably particularly interested in career and have “career motivations” that are closer to those of men than the female HOS business economists in general. However, I still have to be careful about the gender aspects of the results of business economists, and I take these limitations into account when interpreting them.

Even more seriously, business economists aged 50 are underrepresented, while the youngest cohort of business economists is overrepresented. Not even 10% of the FH Schweiz sample belongs to the group over 50, while that group represents more than 25% in the Swiss Federal Census sample. This means also that in the FH Schweiz Sample, especially the youngest cohort is overrepresented with 58%, while it is only 45% of the Swiss Federal Census sample. What triggered this bias? It seems that in the beginning of the 1970s, a certain number of prior, privately sponsored forms of business-oriented occupational schools have been transformed into state-sponsored higher occupational schools. The graduates of these anterior forms of higher business schools do not appear in the FH Schweiz sample, while they are probably included in the census data. This makes it necessary to analyse cohorts carefully. I try to explain carefully the problems caused by such a bias in the chapters on social and economic structures (chapter 5) and on objective trajectories (chapter 6), which are directly based on these data. Here, these differences become an obligation to control for a cohort (in a regression analysis, for example) and to interpret the results carefully, particularly in respect to cohort and age. Also, in the qualitative part, which is not based on the same sample, the conclusions of the quantitative part have to be treated with care.

General Variables

Variables as gender, birth cohort, or study discipline are going to be used as individual variables explaining trajectories and also as variables that have an influence on the indicators of loyalty, orderliness, and success that will be constructed.

Birth cohorts have been coded in individuals born before 1955, those born between 1956 and 1965, and those born after 1966. As individuals with an occupational history shorter than 10 years have been excluded, rare are those born after 1975. I will come back to the exact reason

of this categorisation in a subsequent section on cohorts and its possible influence on careers (see sub-chapter 6.6). The *social origin* has been measured by the occupation and employment status of the parents. The precise indication of the occupation allowed me to classify them according to the Swiss socioprofessional categories (Joye & Schuler, 1995). I relied especially on the combination of the highest-achieved educational degree and the indication of the occupation, sometimes including hints on the hierarchical position. The used classification of first-level socioprofessional categories is the same as the one already used in the Swiss Federal data and the Swiss Labour Force Survey. Finally, the variable *study discipline* is the result of the dichotomisation of the degrees at universities of applied sciences into technical and economic disciplines. Whereas the economic degrees are restricted to accountability, marketing, and administration, the technical degrees are more heterogeneous. Nonetheless, this classification did not raise any major problems; only 0.9% is not classifiable, and 3.2% is missing.

Biographical Interviews

At the very end of the FH Schweiz questionnaire, I asked the respondents whether they agreed to participate in a more thorough, qualitative interview of about an hour. Among the almost 40% who agreed, I chose 30 individuals who now constitute the qualitative sub-sample. This material gives me the possibility of exploring more thoroughly the subjective aspects of career and the meaning that individuals assign to their occupational lives.

The Sampling Process and the Sample

In the field of qualitative research, several sampling methods are in use. Generally, they are supposed to give answers to the question of how we can “assure that the relevant cases for the interrogation of the study and the research field are included in the study” (Kelle & Kluge, 1999: 39)⁷⁵. What matters is not the statistical representativeness with reference to the totality of social characteristics, but “the absence of biases that are theoretically relevant” (Kelle & Kluge, 1999: 38). As random sampling can lead to severe biases in the case of small samples, alternative procedures have to be used.

If the researcher already knows well the field of study, *sampling plans* are the most promising methods. Often, researchers refer to classical socio-demographical criteria as gender,

⁷⁵ Translated by F.B.

occupation, age, or class, and they vary these criteria systematically to cover all the possible conditions of action (Kelle & Kluge, 1999). Then, within each category, the dimensions of comparison are chosen for a certain number of phenomena or individuals for qualitative observation or interviews. On the opposite pole is the method called *theoretical sampling*, developed by Glaser and Strauss within the framework of Grounded Theory (Glaser & Strauss, 1967; Strauss & Corbin, 1990). It is characterised by a more open and tentative approach, giving room to the “emergence” of new criteria during the research process. The researcher looks for relevant categories of comparison by maximisation and minimisation of the contrasts between those categories of phenomenon. In an iterative approach, the knowledge obtained by the analysis is used directly to develop new contrast dimensions that lead to the integration of new clusters of contrasting cases. While the maximisation allows the researcher to explore the diversity of the cases in a given field of study, the minimisation's aim is to validate and consolidate the relevance of a phenomenon. This process ends when a “theoretical saturation” is attained. This is a stage at which the researcher no longer finds theoretically relevant differences, and the categories developed have gained a sufficient degree of density and stability (Strauss & Corbin, 1990).

In the current study, a hybrid procedure has been adopted. In a first step, I use the typology I developed by the quantitative approach as a sampling plan. Only in a second step, and only selectively, do I use cohort, discipline, and sometimes the economic branch to explore the heterogeneity within the different types. In a third step, I include complementary ad-hoc criteria that are emerging from the data—especially in the case of socially heterogeneous trajectory types. The following chart displays an overview of the qualitative sample and crosses the type of career and the cohort.⁷⁶ In appendix 2, please find a short description of all people I interviewed, who are numbered #1 to #30 in accidental order.

⁷⁶ The trajectory-types will be thoroughly explained in the chapter 7 on objective trajectories.

Table 4: Composition of Qualitative Sample in Regard to Career Type and Cohort

	Cohort			Total
	1966–1975	1956—1965	–1955	
Financial-Banking	#13, #22	#15, #21	--	4
Technical-Industrial	#19	#9, #16, #18	#3, #14	6
Service Staff	#2, #7	#11, #24	#17	5
Industrial Management	#5	#23	#12, #20, #28	5
Small Firms	—	#26	#1, #4, #25, #27	5
Financial	#6, #29	#8, #10	#30	5
Total	8	11	11	30

Within the six types, the most important sociodemographic criteria for the selection of the cases has been the cohort membership.⁷⁷ The distribution of the interviewees along the cohorts reflects in a certain way the age distribution within the types. The type “financial banking career” is a rather young type, while the small-firm career is especially widespread among older engineers. I opted rather for older interviewees. Because of the retrospective quality of narrative data, they can also report their situations when they were younger—in opposition to the younger cohorts, who can only tell about their plans for the future. Especially within types that are mixed in terms of disciplines—such as industrial management careers and service staff careers—I took care to include both occupations. This allows me to examine whether the pursuit of this type of trajectory has the same meaning for the two groups. Finally, in types that stretch over many different economic branches, I tried to vary along this line of comparison. Specifically for the financial and service staff careers, I tried to include people working in several branches.⁷⁸ Finally, in some cases, the “most suiting” individuals were not available and were replaced by “proxies”.⁷⁹

⁷⁷ The selected cases are however not varied in terms of gender. To the contrary, in order to understand achievement career as a specific male trajectory women have been almost totally excluded from the sample. However, this decision was not so clear in the beginning – this is why I included two women in the beginning of the sampling process, then saw that the dynamic of their careers differs really radically from the male trajectories and subsequently decided to concentrate exclusively on male engineers and business economists.

⁷⁸ For the financial career: watch industry, textile sale, NGO, Catering business, IT consulting. For the staff career: IT-development, banking, real estate, human resource, consulting.

⁷⁹ The choice was made, as I mentioned, on the basis of the questionnaire. However, the information given there was not always easy to decipher. Therefore it could happen that somebody who fit well the requirements at first sight, turned out not to have the exact profile for which I was looking for. In extreme cases of such mismatching I canceled the appointments.

Interview Techniques and Carrying out the Interviews

Sociological literature on interviewing is often squeezed between two postulates: On one hand, the strength of interviews is the freedom given to the interlocutor to present his or her subjective view of things. On the other hand, it is important to be able to compare the interviews. As this standardisation, in turn, can be a restriction on the liberty of choice of topics given to the interviewee, most of these solutions are based on a sequentialisation of the two elements: in a first stage, large liberty is given to interviewee, while in a second phase, the interview is completed by more directive questions.

For the conception of my interview techniques, I was inspired by the “problemzentriertes Interview” developed by Witzel (1989, 2000) and by the ideas of the “biographical interview” by Schütze (1983). Both of these techniques are composed of several stages. At the beginning, the researcher asks the interviewee an open (and therefore often “biographical”) question, which is supposed to stimulate a narrative response and, at the same time, to orient the interlocutor toward the problem or the topic under investigation. I told the interviewees that I was interested in their occupational trajectory and asked them to narrate their “story” from the beginning (including how they grew up, how they experienced their youth, and how they began to work). Most of the interviewees responded to this request with a rather coherent narrative of their social and occupational trajectory—sometimes I had to “regulate” the level of detail or to insist that I really was also interested in their upbringing before the start of their career. During what Witzel calls the “general sounding”, the researcher tries to reorient the interviewee on the topics his interest, for example by taking up narrations that remained underdeveloped or that have only been streaked by the narrator (Witzel, 2000). Specifically, I divided the interview in four “blocks”, which allowed me to cover all the topics that touched my research questions: the first block coincides with the “general narration”, the second one concerns the occupational trajectory, the third one the family life and leisure, and the fourth one the future (see also the interview guide in the appendix 2). In a second stage, the researcher tries increasingly to bring in his prior theoretical knowledge or to address the explanatory elements brought up by the interviewee. This is to deepen and clarify the discourse by reflecting, for example, what was said shortly before and by giving the interviewee the occasion to confirm, nuance, or infirm what he or her already said. As suggested by Schütze (1983), I took care to ask these questions in a narrative form and to allow the interviewee to clarify a specific point by narrating another story or to situate an explanation in the general narration of his biography. In a third and final stage, the researcher

is encouraged to ask ad-hoc questions that aim at an enhanced comparability of the interviews (Witzel, 2000). Here, I addressed issues that I had the impression were specific to this interviewee or that seemed very strange to me. Often, the closing phase of the interview offered an occasion to situate the interviewee's "story" in a somewhat more informal atmosphere (sometimes after the recorder was stopped) about the current political and economic situation.

I contacted the willing respondents by telephone, explained what I wanted (as the interviews took place, in certain cases, over 1.5 years after they filled out the questionnaire), and tried to fix a meeting. All the people contacted by telephone accepted an interview. As the persons often had quite tight working schedules, I always offered to come wherever and whenever they wanted, as long as it was in Switzerland. However, I required that the meeting would take place at a calm place and that we would not be disturbed by a third party. The geographical situation of the meetings varied strongly. In addition to the larger cities (Zurich, Geneva, Lausanne, Basel, Bern, and Lucerne), I have been in the most northern, the most western, and the most eastern points of the country as well as (almost) everywhere between them. The length of the interviews was 75 minutes on average and varied from about 45 minutes to over 150 minutes. Interviews at home lasted normally longer than those at work, as they included most often sipping coffee and sitting on the balcony of their houses. Additionally, interviews with younger people were shorter, as their stories simply covered a shorter period.

The respondents explicitly agreed to an in-depth interview. Therefore, without exception, they were quite willing to tell their stories. Only very rarely did a dragging dialogue situation come up, in which the interview was reduced to a game of question and answer.⁸⁰ As there was no major sociostructural gap between the interviewees and me, there were no special obstacles to climb, and generally the interviews flowed very easily. In some cases, the interviewees were in a biographically difficult situation (or just came out of it) and wanted to tell and share the

⁸⁰ Astonishingly or not, this was the case for one of the interviews with a female business economist, whereas the second interview with a woman (also business economist) was sometimes also close to such a situation. I am however not sure, if this was due to my specific (?) behaviour in the interview, the fact that a woman was interviewed by a man or the fact that an interview about career means something different for women. In the last case, it is possible that this different meaning could have led to a certain „tension“ that then resulted in a question-answer interview situation.

story from outside their firm or family.⁸¹ These interviewees seeking to share their experiences did not necessarily pose a problem but responded in a sense to my requirements. They have been confronted to a situation of crisis, and their experiences reflect the subjective interpretation and reactions that I am looking for in my research. At the same, for the majority of the interviewees, the career is quite simply and “naturally” a very important topic in their daily lives.

These observations point out the fact that qualitative interviews must be understood as situations of social interactions. As a consequence, they follow rules comparable to most of the other situations of interaction. On one hand, this means that the perceptions the interviewee gets of the interviewer are crucial. Coenen-Huther writes, for example, “the attitudes of the researcher and how they are perceived by his interlocutors have an influence on the declaration of the latter” (Coenen-Huther, 2001: 16). This means that the answers will differ depending on my age, my sex, or my educational background and the perceptions by the interviewees. Also, it is not the same thing whether I present my research interest as being about the status of higher occupational school, about the relationship between family and occupation, or about career. Inversely, we are neither interacting in the same way with everybody nor independently of the circumstances. “What we express and how we express it depends on the play of roles in which we are engaged” (Coenen-Huther, 2001: 16). It is certainly another thing to speak to an older director of a large, international bank than to a young engineer who maybe in a situation that is very close to mine. This raises the question of how I was perceived by the interviewees and what this special perception meant for the answers they gave to my questions. The first distinction, which was important to certain of the interviewees, was the fact that I came from the university and was therefore considered to be a “theoretical” or “abstract” guy to whom one has to explain everything. In addition, I presented myself as a sociologist, an occupation that, for most of them, seemed to be rather “abstract” (they do not really know what sociologists do). Certain considered it even as “useless”—half joking, half serious (against such useful tasks as engineering or managing). I first unconsciously, and as time drew on, consciously profited from this role as a “useless, theoretical outsider”. It let me explain many things and mechanisms to obtain a thicker description of their worlds. Most of this material stemming from descriptions of their work was revealed to be rather rich because it contains most of their central categories and serves as

⁸¹ In a very special case a person even expected that my research could contribute to his argumentation in a lawsuit case against his former employer he was involved in. I did finally not include this 31st interview, mainly because he didn't allow me to record it because of legal reasons.

a good illustration of their way of thinking. However, it was not very useful to understand their trajectory, especially with engineers, who have the tendency to lose themselves in the (technical) description of their work. Hence, I sometimes had to redirect the flow of their answers. This tendency was even more pronounced with older interviewees, who sometimes adopted a rather fatherly relationship with me and explained their situation as they would explain it to a young, aspiring beginner. In situations when we spoke about the family or the relationship between family life and occupational life, being male was also particularly important. I had the impression that certain “typically male” career plans and behaviours have spoken about more easily, as very often a kind of male comradery emerged in the course of the interview.

Often, for the interviewees, I stayed a rather “abstract” outsider who was not always easy to classify. I had the impression that they adapted their behaviour to situations of the interview that were known to them. One interviewee (#8), who also went to the psychotherapist, seized the interview as an occasion to reflect on his life and career as he does when he attends therapy sessions. Of others, particularly the younger ones, I had the impression that they compared the situation to a hiring interview or to a yearly evaluation interview with their superior. This fitted very well with the request to speak about their biography, but sometimes it also led them to “sell” their forces and accomplishments so far. They talked about their experiences and the knowledge they acquired, sometimes almost to convince the interviewer of the legitimacy of their ascension. Finally, I think also that the interview accounts reflect the fact that, at the workplace, things that are very central to the actors cannot be spoken about. For those who make a career, the persons of reference are the “superiors”, the “inferiors”, and the “competitors”. Especially to the superiors and the competitors, it is obviously difficult to speak about one’s career, experiences, balances, projects, and plans. Because of norms of understatement, or perhaps even more, because of the idea that only deeds count, not words, it is difficult to speak “honestly” about one’s dreams and plans to superiors and competitors. Very quickly, this is interpreted as overambitious or pretentious. It is therefore a kind of integral part of a “successful career habitus” to be able to hide even strong and dominating ambitions—at least to a certain extent. This is not easy because, at the same time, it is very likely that the plans and ambitions are at the heart of these individuals’ personalities. In this situation, the interview, and in particular my outsider status, seemed to be a good occasion for these individuals to speak about things that are very important for them, but about which they

are not able to speak in their daily work lives. This might be one of the reasons that led to interviews that I perceived as relatively “non-problematic”.

Analytical Strategies and Presentation of Material

My analytical method was inspired by the method of Schütze (1983) when it comes to developing the individual trajectory conception (chapter 7). The examination of biographical representations (chapter 8) is inspired by and large by the grounded theory approach suggested by Glaser and Strauss (1967) and refined by Strauss and Corbin (1990).⁸² However, due to the structural constraints, related amongst others things to the mixed method design, the analytical procedure was not as open and not as dialectic (between data collection and analysis) as the one described by Corbin and Glaser.⁸³

For the development of the “individual careers”, I tried in a first step to exfiltrate all the parts of the interviews that narrated the sequential course of the trajectory.⁸⁴ Then the aim was to identify temporal “markers” that were supposed—from the interviewees’ points of view—to segment the trajectories in their relevant spells and to identify the major events. These markers can be terms as “already”, “still”, “all of a sudden”, “before”, “when I was young”, or “after this time”. In a third step, the so-identified and still very case-specific temporal structures were detached from their individual base and synthesised into more general analytical schemes of biographical structures. This necessitates first, in the words of Schütze, relating the identified biographical phases with each other (within the biography). This allowed me to develop typical forms of whole trajectories beyond the identification of single spells. But it also necessitates a systematic comparison of the sequential structures between the cases to develop a more abstract and general scheme of these temporal structures (Schütze, 1983: 287). Then, either the researchers finds that most of the interviewees conceptualise their biographies in similar terms—they think it is composed of the same typical phases that last more or less the same amount of time and follow each other in about the same order—or the researcher discovers that the individual conceptions of trajectories can

⁸² The qualitative analysis of the data was made by the help of the “Qualitative Data Analysis-Software” (QDA) Atlas.Ti. As other software-packages (Nudist, MaxQDA) this program facilitates the organisation and structuring of data. It has been developed with a close eye on the principles of grounded theory and takes up several of its features, as codes, memos or networks as a method of axial coding.

⁸³ As indicated, the sampling process is for example not continually informed by the current analysis. The sampling follows the typology developed in the quantitative part and was not very „iterative“.

⁸⁴ This can be compared to what Schütze calls „formale Textanalyse“ (1983: 286) or what Demazière and Dubar call the exfiltration of „séquences de récit“ (2004: 115)

be organised in a typological form and can distinguish themselves systematically when it comes to a small number of clearly identified dimensions of comparison.

The analysis of the biographical representations is based on a use of the *dimensions of achievement career habitus* (see sub-chapter 2.5) as sensitising concepts. This means that rather than following a pure inductive logic of open coding, such as championed by Strauss and Corbin, I read and analysed the interviews from the beginning with the lenses of these concepts that are described in the literature as characteristics of an achievement career. In other words, I looked out in the interviews for passages about “striving”, “future and progress”, “conception of time”, “meritocracy”, and “the articulation between family and work”. This analytical process, however, was neither linear nor exclusively “top down”. It supposed a continual back and forth between theory and the interviews—certain results found in the data, for example, animated me to seek further theoretical background, which in turn might have oriented my subsequent glance at the data. In this sense, the analytical process also included a bottom-up emergence of concepts. Comparable to the process of open coding (Strauss & Corbin, 1990), I tried to analyse specific lines, paragraphs, or sections to decompose them into their parts and to give these parts a name that is more than simply a descriptive label. I tried to generalise these findings by comparing them to other interviews and by comparing them to the theoretical concepts of the literature. In this way, with time, I managed to group and classify the found phenomenon in more abstract categories as a way to develop their characteristics and dimensions (Strauss & Corbin, 1990) and to reconcile theory and data.

In qualitative studies, the presentation of the material and the use of material as “evidence” is one of the most difficult aspects. Certain scholars just put the totality (or at least a part) of the interview accounts in the result section. Others restrain the interview excerpts to a strict minimum or think that the use of a certain number of characteristic expressions and terms used by the interviewee to be sufficient. Another line of discussion is the presentation of cases vs. the presentation of synoptic excerpts. In the first case, the researcher, to illustrate a phenomenon, chooses one (or a small number) of interviewees who incarnate the most typical results the researcher wants to show (for such a use, see, for example, Coenen-Huther, 2001; Honegger et al., 1998; Buss-Notter, 2006). Others prefer to use a series of excerpts from different individuals. In this way, one might lose some contextual information but the

excerpts might more precisely illustrate the phenomenon (see, for example, Berner, 1999; Raymond, 1982; Bonetti & Gaulejac, 1982).

I will personally use two kinds of illustrations. First, I will present certain particularly speaking expressions and in-vivo terms (Strauss & Corbin, 1990) in descriptive parts. Second, especially when it comes to describing certain perceptions of reality (concerning family, social justice, time, etc.), I will use synoptic excerpts that specifically concern these themes. These excerpts are graphically centred and written in another font, so that they are easily recognisable. I also refer to the person who enunciates the excerpt by indicating his or her number (which can be consulted in appendix 3). It makes no sense to work with entire cases or biographies if the phenomenon to be illustrated is topic oriented and specific.

Part II

Empirical Analyses

5. Economic and Social Structures 1970–2005

5.1 Introduction

While the period from 1950 to 1970 was characterised by a quick, massive, and relatively steady economical upswing, many scholars consider the 1970s as a time of rupture that put an end to the 30 years' lasting golden age. The same period is said to be a time of female emancipation, of an adaptation of marital or labour law to more egalitarian gender standards⁸⁵, of increased female labour market participation, and of new family forms—factors that together contribute to the slow erosion of the bourgeois family model.

To understand these structural changes and their consequences for achievement careers, I deploy a hierarchical analysis depending on the availability of data (see chapter 2). The first level (1) concerns the general indicators of economic development (unemployment, economic growth, etc.). They are quite well documented and easily available, but their impact on organisations and individuals is often unclear. Therefore, I try (2) to present the changes on an institutional and organisational level and discuss how these changes possibly could impinge on the occupational trajectories of social climbers. Third (3), I examine the evolution of engineers and business economists, thanks to census data, and try to understand how, very locally, the opportunity structures changed for them. In quite a similar way, I scrutinise the transformation of engineers' and business economists' family structures in the second part. To understand the transformation in this domain, I discuss briefly some of the legal and macro-structural changes and then show how the family structures of business economists and engineers are concerned by these.

5.2 Structural Macrodynamics

What is the “big story” of the last decade's economic and social transformation in Switzerland? Most scholars state that, in Switzerland, the crisis of 1974/75 was more abrupt and brutal than in the average OECD countries and that it fell together with a sharp sectoral reorientation of economy (Levy et al., 1997). According to Gilg and Hablützel (1983) or

⁸⁵ However, the new Swiss martial law has been introduced as late as the 1st January, 1988.

Siegenthaler (1987), it was due to a combination of conjectural and structural reasons. The collapse of the Bretton-Woods treaty forced Switzerland to adapt to a system of flexible currencies exchange. This caused a quick increase of the change value of the Swiss franc, underestimated for a long time (Gilg & Hablützel, 1983). As Switzerland, and especially its modern chemical and machine industry, always had a high exportation rate (about 80%), the following decrease of exterior demand for Swiss products hit the Swiss industry hard, the conjuncture-sensitive machine industry the hardest. The already weak position of traditional, labour-force-intensive industry, as the once-leading textile sector or the wood industry, worsened considerably (Bergier, 1984). The increase of raw material prices following 1973's "petrol-shock" reinforced the tendency of crisis, as Switzerland never disposed of domestic raw materials. Particularly concerned were the domestic construction branch, the watch industry, and the machine industry (Gilg & Hablützel, 1983; Siegenthaler, 1987). The combination of these trends led to a retarded but sharp turn toward a service economy (Levy et al., 1997). The industry lost about 300,000 work places and began to delocalise plants and employment abroad. Astonishingly, the unemployment rate did not follow. Switzerland forced up to 200,000 alien citizens—mainly employed as non-qualified workers in the industrial sector—back to their countries and decreased female labour market participation. These strategies contributed to dampen the effect of the recession on unemployment. The banking sector—meanwhile the second crucial sector of Swiss economy—slowed down in comparison to the post-war period, but continued to progress in terms of profit and turnover (Union des Banques Suisses, 1987; Gilg & Hablützel, 1983).

In comparison, the crisis of 1991 to 1994 had particular effects on the organisation of work. It resulted from a liberalisation of the global capital, goods, and labour markets in wake of the WTO negotiations and led Swiss banks and the Swiss industry to adopt increasingly finance- and stock market-bound financing modes. This led to a heavy crisis composed of a combination of transitional and structural factors. While, in the second half of the 1980s, the yearly economical growth amounted to about 3%, it decreased to 1% between 1990 and 1998 (Honegger et al., 2002). In comparison to the crisis in 1974, due to a modification of foreign immigration laws, the alien labour force could no more be forced back to their home countries. In addition, the women were less willing to retreat from the labour market. As a result, the unemployment rate for the first time after the great depression mounted to over 5%, and almost 290,000 places of employment disappeared in 1998 alone (Honegger et al., 2002). A second difference compared to the earlier recession periods was that firms began to

radically reorganise their work structure. Relocations, merger acquisitions, and internal restructuring were common reaction patterns, which cost not only hundred of thousands of places of employment, but also intensified the pressure at work for most of the employees and contributed to new salary models, new ways of organising the work flow, and new organisations of occupational trajectories.

5.3 Consequences on the Organisational Level

As a consequence of these macro-economic changes, the organisation of employment potentially changed. I evaluate whether and how, in Switzerland, career ladders shortened, work positions de-formalised, large-scale firms eroded, and new recruiting and dismissal policies were established⁸⁶.

Shortening of Career Ladders

At first sight, the "shortening of career ladders" refers to a reduction of the number of hierarchical levels in the firms and, on an aggregate level, the reduction of the average number of levels divided by the firm size among all the firms⁸⁷. Modern, large-scale corporations, however, are very complicated organisms, featuring large numbers of branches, unities abroad, and different forms of partnerships, subsidiaries, and affiliated firms. Therefore, determining and clearly defining the number of hierarchical levels is difficult. It is no wonder that—at least as far as I know—none of the large surveys in Switzerland includes questions on the length of career ladders.

To my knowledge, the only attempt to shed light on the question stems from Levy et al., who approach the questions from the individual's point of view (Levy et al., 1997). They examine how successive cohorts of employed individuals aged 35 to 45 are distributed according to the hierarchical level. The hierarchical level is coded into "upper management", "middle management", and "executing" (Levy et al., 1997: 190). Despite a rather slow evolution, actors holding middle and upper positions slightly increase their share in the period of 1945 to

⁸⁶ I speak deliberately of "evaluating", because the postulates are not always easy to operationalise and would require extensive ethnographic studies among a sample of carefully selected companies. Therefore I approach them indirectly - for example by drawing conclusions from individual behaviour on structural causes. Of course, such indirect approaches are approximate and do in addition hardly ever explicitly include the affection of specific groups of employee, such as engineers or business economists.

⁸⁷ It seem as well, that in the use of Bouffartigue and Gadéa (2000) it is rather presumption than an empirically measured evidence. They do not propose any operationalisation of the concept.

1975. From 1975 on, however, individuals holding upper management positions declined in favour of holders of mere routinised tasks. Levy et al. conclude: „This would be conform to the idea of an increase of the intermediate positions in the course of the principal period of economic growth and an inversion of the process under the sign of ‘lean management’ and a return of more centralised forms of organisation. This would also tend to support the thesis that the implantation of new technologies ends up polarising employment in an asymmetric way, by simultaneously increasing the poorly qualified and rarefying the intermediated functions”.⁸⁸ (Levy et al., 1997: 191)⁸⁹

It seems, thus, that careers ladders have been slightly shortened since the 1970s and that they now exert pressure on achievement careers based on long chains of hierarchically ordered positions. At the same time, the numbers presented by Levy et al. (1997) can also be interpreted as a rather slow and continual development without a clear-cut trend. It is doubtful whether the distribution of hierarchical levels has undergone a "historical break" comparable, for instance, to the Great Depression in the 1930s (König et al., 1985). More serious, it is not clear what is actually happening. It is just as likely that fewer people aspire for these places or that certain groups (for example, those without educational credential) are pushed out of the market, etc. For all these reasons, I think that there is neither structural evidence nor massive individual testimonial that career ladders have been systematically shortened in the wake of organisational restructuring in Switzerland.

Decategorisation of Work and New Promotional Criteria

The decategorisation hypothesis postulates that organisational hierarchies are increasingly replaced with "non-hierarchical" forms of work, such as project organisation or teamwork. This process and the supposed consequences it implies for the individuals pursuing an achievement career are difficult to operationalise. It would be necessary to follow potential transitions by ethnographic methods among of a sample of representative companies. This type of data is only very selectively available; while the transformation in the Swiss banking sector, thanks to the studies of Honegger and Rychner (1998), Honegger et al. (2002), and Buss-Notter (2006) is partly documented, data lacks for the industrial sector. The only exception is the chemical industry, whose transformation processes have been studied by Streckeisen (2008) and Nadai and Maeder (2006). However, specific data on career ladders

⁸⁸ Translated by F.B.

⁸⁹ Translated by F.B.

and careers is missing. It is, for example, not clear whether project and team organisation is applied to whole sectors, to whole firms, or only to very specific units and production processes in particular sectors. What is more, little is known about the articulation between hierarchies and projects. It would be particularly interesting to know whether and how decategorised positions may be reconfigured and rehierarchicalised according to alternative criteria, potentially contributing to new forms of hierarchical careers.

In absence of general contemporary studies shedding light on decategorisation of occupational positions, a historical glance at the problematic may reveal insight. The historical lesson learned in the previous chapter suggests that it is doubtful that the strict categorisation of employers and the crystallisation of clear-cut social statuses with precisely defined social rights and duties was (or is) typical for the Swiss situation. The debate, for instance, about the agony of the social category of "cadre" (Boltanski, 1983; Bouffartigue, 2001b), virulent in French sociology, has not taken place in Switzerland. The social figure of the cadre has never been anchored in the Swiss reality, even if it constitutes a category in the official Swiss statistic (Joye & Schuler, 1995; Schultheis et al., 1996). This means that the notion of formal status (such as "cadre") and the idea that a certain educational credential automatically entitles an individual to occupy a clearly defined position is much less widespread in Switzerland.

Swiss culture in general may be based less on status. And the social climbers, as engineers and business economists, clearly represent a radicalisation of this way of thinking. As the qualitative interviews show, the Swiss career candidates are characterised by their "practicality" and a strong "performance orientation". They still believe that their ascension is due to large part to their individual performance in their daily jobs and not to educational credentials, often treated as mere "paper". Especially in their younger years, when they are the most passionately striving for upper positions, they often personally complain about "formal" career mechanisms that are only based on "titles" and not on "performance". And even older engineers who experience downgrading do not defend themselves in terms of "social rights" or "statuses". If they say that "experience" should be better honoured, they understand rather that the more experienced are more effective and, therefore, should be rewarded.

For all these reasons, I argue that, on a psychological level, engineers and business economists in Switzerland do not experience the decategorisation in the same way as a deconstruction of formal categories and formal ladders⁹⁰.

Decline of Traditional Forms of Large Firms

Certain scholars postulate that large firms are becoming rarer and are changing their "integrated" natures. This hypothesis posits that the firms "outsource" the functions not belonging to their core business and create in this way a series of small, dependent suppliers. Because of the resulting fragmentation of functions across several firms, career pathways increasingly lead across firm boundaries, and the firms themselves are no longer held together by careers.

Several studies demonstrate that the composition of firms according to size remained very stable in Switzerland from 1920 to 1970 (Glatthard, 1987; Levy et al., 1997; König et al., 1985). From about 1980 on, however, the share of employees working in large-scale companies decreased, while the small, and above all the very small firms, gained in weight and led to an increase of the proportion of the self-employed (Levy et al., 1997: 194). Certain scholars interpreted this as a consequence of the growing importance of outsourcing policies and the increased recourse to dependent suppliers. This would mean that the decreasing proportion of large-scale firms is due to "an increase of post-industrial sectors, where self-employment is 'endemic' [for example, certain business services], an increase of self-employment in traditional sectors and, for a less important part, a precarious response to unemployment" (Levy et al., 1997: 195)⁹¹.

More recent data, however, show that the "break" of the 1980s did not actually become a long-term "trend". The relative proportion of different firm sizes remained fairly stable in the wake of the 1980s; the large firms with more than 250 employees continued to employ about 70% of all Swiss employees (Arvantis et al., 2004). Although out sourcing has been widespread in Switzerland, and the business service sector has literally exploded in the last 30 years, large-scale companies have not lost their dominant role. Large firms still offer

⁹⁰ This is also rather ironic, because in fact (but structurally hidden) the educational title does play a tremendous role. Several studies show that upper Swiss economic elite is almost exclusively recruited among the holders of very special university diploma, often of certain "informal" elite institution as University of St. Gall or the Federal Technical School in Zurich (Barrial, 2006; Davoine, 2005; Dyllick & Torgler, 2007)

⁹¹ Translated by F.B.

"organisational careers" in a long-term perspective. In particular, large insurance and banking companies recruit young graduates in the wake of their university graduation to form and train them internally and then to launch them on "bureaucratic careers". Symptoms pointing to a decline of the traditional large-scale firm are thus weak. Numerically, they are still dominant, and the concentration on the core business does not seem to have fundamentally altered their career policies.

New Recruiting and Dismissal Policies

This hypothesis suggests that, due to a stock-market bound financing and a stronger shareholder value orientation, formerly "paternalistic" personnel policies are "optimised" without considerations for career pathways. Regardless of long enduring collaboration and paternalistic conceptions of merit, they render regular restructuring and short-term mass dismissal possible. All this is supposed to lead to an increase of broken career ladders.

The Swiss banking sector underwent a rapid concentration process in the 1990s and was completely restructured by a series of merger acquisitions. This implied major internal restructuring, away from a national branch organisation in direction of an international organisation in terms of "business units" (as asset management, private banking, or investment banking, etc.) (Honegger et al., 2002: 78). Along these restructuring lines, the banks reduced their personnel by about 10%, in Switzerland from about 119,000 employees in 1990 to 104,000 in 2002 (Buss-Notter, 2006). Almost every position and function in these banks underwent a redefinition: in one of the big banks, on a so called "zero-based job-design", "all organisation charts and jobs are cancelled, all labour contracts dissolved and then refilled by in the course of a new recruiting-process" (Buss-Notter, 2006). It is thus no wonder that in a survey of the "Schweizerischer kaufmännischer Verband", almost 50% of the bank employees thought their jobs were threatened and felt insecure about their occupational futures (Honegger et al, 2002: 88). In contrast to former restructuring, actors from every hierarchical level, beginning with the CEO, are concerned and potentially threatened with dismissal or a radical transformation of one's job and position.

Simultaneously, the Swiss industrial sector underwent a series of fundamental changes. The increasing international competition in the wake of the liberalisation of the markets by the WTO treaty pushed the Swiss industrial firms, especially those in the sensitive export-oriented sectors, to change their mode of financing. The long-relied-on traditional bank loans

(which permitted long-term strategies without immediate profitability requirements) were replaced from the 1990s on increasingly to stock market-related financing (Widmer, 2007). The stock market capitalisation of Swiss industry increased from 211 billion Sfr. in 1988 to 1,100 billion in 1998 (Mach, 2006). This new mode of financing, favoured by the increasingly dominant institutional investors, required short-term profitability and led often to an accelerated rhythm of internal organisational restructuring. A study of the union GBI (now “Unia”) in 1999 showed by the case studies of Rieter, ABB, Sulzer, Ascom, and Alcan how firms concentrated increasingly on the most profitable units, closed down or sold the not-so-profitable parts, and reorganised the remaining units (FTMH, 1999).

The simultaneous and radical transformation of banking and industry is no coincidence. From the 1920s on, the boards of large-scale Swiss companies were dominated by a narrowly interwoven elite network, representing the leading Swiss banks on one hand and the leading Swiss industrial firms on the other (Schnyder et al., 2005). This "fortress of the Alps" (Mach, 2006) has been held together by mutual interests. It has contributed decisively to the success of the Swiss economy in the post-war years. The radical transformation of one sector is therefore heavily dependent on the transformation of the other. The joint “financialisation” of the banking and industrial sector led to recruitment and dismissal policies without consideration of the well being of the employees beyond the strict jurisdictionally necessary. The splitting up of companies and the massive rearrangements of units and organisational structures could not have remained without consequences for a large part of the qualified engineers working in these firms. Managers of Swiss firms no longer hesitate to lay off massively if they feel it is necessary for the efficiency of the production or to send a signal to the stock market that “they are doing something”.

5.4 Opportunity Structures for Engineers and Business Economists

In this part, I will directly examine the work situation of engineers and business economists with an HOS degree. I will first cast a glance at the demographic evolution of engineers and business economists, and then I will follow with an analysis of sectoral shifts. The following analysis of the unemployment rate and the type of labour contract sheds further light on the involvement in the crisis and gives me a certain insight in the career chances and obstacles for engineers and business economists.

Demographic Evolution of Engineers and Business Economists

The demographic evolution of engineers and business economists holding a higher occupational school degree is sketched in the following table, which displays their absolute and relative numbers at four points in time, from 1970 to 2000.

Table 5: Absolute and Relative Numbers of Engineers and Business Economists (1970–2000)

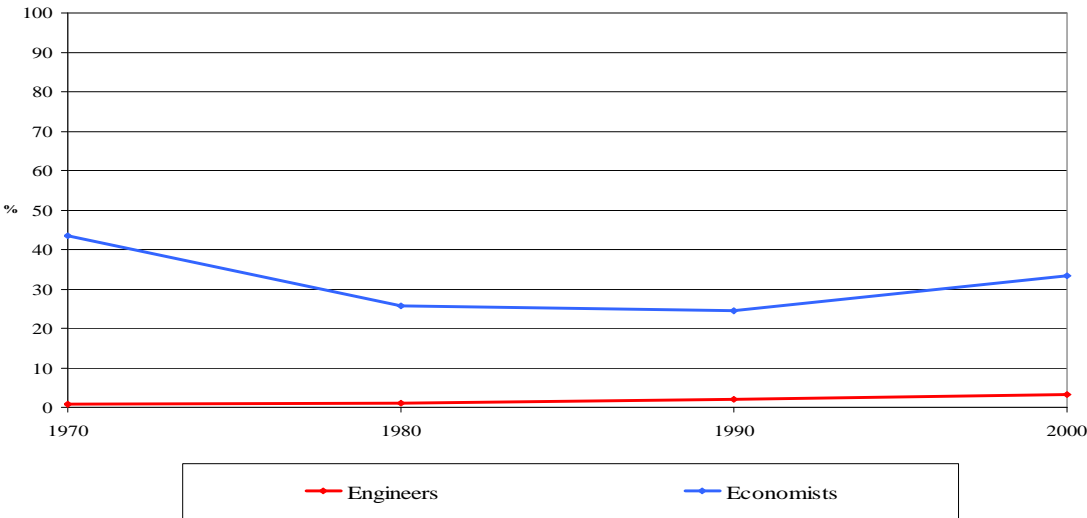
	1970		1980		1990		2000	
	N	%	N	%	N	%	N	%
Engineers	45996	0.73%	65762	1.03	80266	1.17	76143	1.04
Business Economists	28954	0.46%	36906	0.58	65473	0.95	80378	1.10
Total Population	6269783		6365960		6873687		7288010	

Source: Swiss Federal Census, 1970, 1980, 1990, and 2000. Percentage of the population aged 20 to 65. Results are based on people holding a HOS degree as engineer or business economist (not on practised occupations).

Both groups grow in relative and absolute terms. Engineers started at a higher level in 1970, increased slowly between 1970 and 1990, and then begin to decrease from 1990 to 2000. By contrast, business economists were relatively few in 1970, but then began to grow rapidly as a consequence of the increasing number of higher occupational schools in the commercial sector. Not only in absolute numbers, but also proportionally, they augmented their share from about 0.5% to over 1% of the Swiss population aged 20 to 65.

The following table shows the evolution of the gender composition of engineers and business economists.

Figure 6: Proportion of Women among Engineers and Business Economists (1970–2005)



Source: Swiss Federal Census, 1970, 1980, 1990, and 2000

In the two occupations, the numerical domination of men differs in its extent and in its historical evolution. The engineers consist continually of a proportion of less than 5% women. A very slow "feminisation" brought the score from 0.8% in 1970 to 3.3% in 2000.⁹² With a share of about a fourth, women are more equally represented among business economists. The numbers indicate a brusque masculinisation between 1970 and 1980,⁹³ followed by a period of a stable rate of about 25% women for 20 years, and finally by a slight refeminisation by 2000.⁹⁴ Following a well-known pattern (Abbott & Hrycak, 1990; Heintz et al., 1997), it is likely that this feminisation is accompanied by an internal differentiation, creating female and male sectors of the profession. Even if the official categories fail to grasp finer differences, reports from business economist interviewees indicate that the internal differentiation between accounting (as a "hard" and "rational" male specialisation) and marketing (as a "creative" and "intuitive" female specialisation) are striking (Heintz et al., 1997).

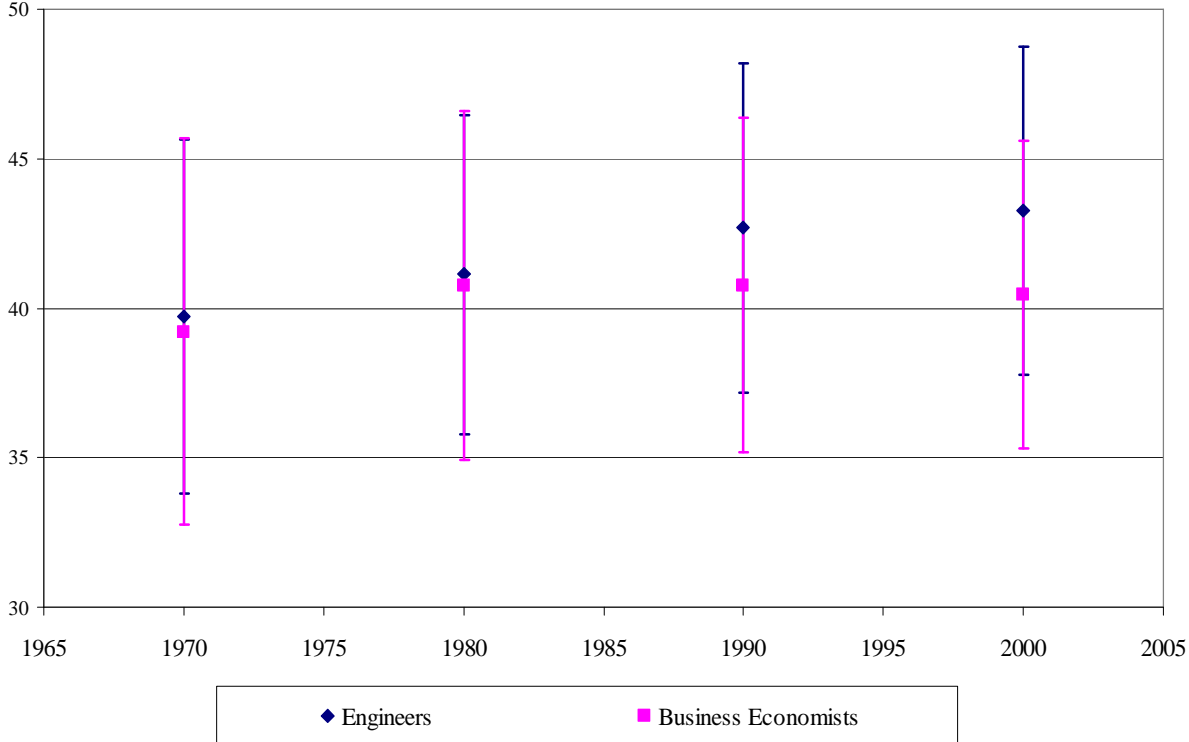
The age distribution illustrates the collective trajectory of the occupations and reflects the demographical career chances related to it. The following figure resumes the age distribution of business economists and engineers from 1970 to 2000.

⁹² This general finding is nuanced by Ryter and Meyer (1993) who emphasise that the proportion of women is lower among Higher Occupational School/higher occupational school-Engineers than among University Engineers, and even lower in the so-called "hard" sub-disciplines as Civil-, Machine-, or Electric Engineering. Besides cultural factors, this is due to a formal exclusion of girls from a certain number of technical apprenticeships, which was only abolished in the 1970.

⁹³ The proportion of almost 45% women among business economists is surprising. It is possible that this translates a statistical coding problem. In fact, as already mentioned, the Higher Commercial Schools have only been regulated (and partially founded) by cantonal governments from 1968/ 69 on. However, before semi-privately run schools with similar functions already existed (König et al., 1985) and the diploma holders of these institutions seem to be taken into account by the category „HOS business economists“. I assume that other, more feminised curricula are mixed with the HOS-title and that this changing categorisation is due to historically changing rules of statistical categorisation, rather than on a real feminisation.

⁹⁴ However, according to Chaze (2006) the change from 1970 to 1980 could also result from changing coding policies. It is therefore more cautious to speak of a fairly stable female proportion, which has slightly increased in the 1990s.

Figure 7: Average Age and Variation of Age of Engineers and Business Economists (1970–2000)



Source: Swiss Federal Census, 1970, 1980, 1990, and 2000. Means and standard deviation.

While engineering was a relatively young occupation in the 1970, it aged with the years because of a slowdown of the number of new graduates compared to the period from 1945 to 1970.⁹⁵ Business economists were on average already slightly younger than engineers in 1970. The launching of commercial higher occupational schools from 1969 led to a rapid and constant growth of HOS graduates from that moment on. This is reflected by the steady rejuvenation of the group compared to engineers, especially by the 1990s.

Deindustrialisation and Upswing of Business Service

The following analysis indicates the distribution of engineers and business economists among a five-fold categorisation of the economic sectors.⁹⁶ It shows in which sectors the two occupations are employed and allows me to examine which periods were the richest in changes. Of particular interest are the differential involvements of the two professional groups by sectoral shifts.

⁹⁵ See also: Ryter and Meyer, 1993.

⁹⁶ This categorisation distinguishes particularly between personal services, services to business and banking/ insurance and will be used again in further analysis.

Table 6: Distribution of Engineers and Business Economists among Economic Sectors (1970–2000)

	Engineers				Business Economists			
	1970	1980	1990	2000	1970	1980	1990	2000
Industry	47.1	43.0	33.1	29.9	24.8	20.2	16.6	13.7
Construction	27.0	12.9	11.4	10.7	3.5	1.9	2.7	1.6
Public/ Personal Services	21.6	22.8	26.8	28.7	53.7	47.8	40.9	40.7
Banking and Insurance	1.2	1.5	3.4	4.1	12.3	17.2	20.9	3.3
Business Services	2.9	19.2	25.0	26.1	5.6	12.7	18.7	20.3
Others	0.2	0.3	0.3	0.5	0.2	0.1	0.2	0.4

Source: Swiss Federal Census, 1970, 1980, 1990, 2000

Even though the “story” of the crises of 1974/75 or 1991–1994 describes them as relatively sharply circumscribed "events", the reaction in terms of the employment situation and sectoral shift is not as immediate. It can spread for quite a long period after the actual crisis. Therefore, almost every decade experienced major changes in one of the branches, while in other periods, the situation was fairly stable. However, it seems that in terms of sectoral shifts, the 1970s and 1980s were more turbulent than the 1990s. In the 1990s, only a very few engineers and business economists were forced to change the economic sector. The crisis of 1991 is not about economic sectors and their relative weight.

From the 1970s far into the 1980s, both occupations were affected by a radical and long deindustrialisation combined with the radical loss of engineering positions in the construction sector. Second, I observed a radical shift within the service sectors; whereas business services were rather insignificant in the 1970s, they became home to almost a fourth of all engineers and a fifth of all business economists in 2000. Banking and insurance are also employing significantly more engineers and business economists, while the "public and personal service" sectors have seemed to lose relative importance.

In 1970, over 75% of the engineers worked in either production or construction. This number fell to 40% in 2000, a trend that could be described as a *service turn* of engineering. The construction sector suffered losses of engineers between 1970 and 1980⁹⁷, while the industry

⁹⁷ It seems that this loss is partially due to coding decision – in spite of the severe crisis in the Swiss construction branch in the wake of the oil-crisis in the 1970 it is suspicious that employment in this sector goes drastically down, while the “technical consulting and planning” is characterized by a steep growth from 3% to almost 20% from 1970 to 1980.

lost its status in the 1980s. The engineers migrated mainly to business services, which experienced a sharp upswing. A closer look, however, shows that they concentrated exclusively on the sub-branch called “technical consulting and planning” and did not migrate in the lucrative segments of business or financial consulting. Only a minority of engineers’ moves were into banking or assurances; public and personal services slightly reinforced their already quite strong position as an employment-sector for engineers.

Business economists moved mainly *within* the service sector. Whereas in 1970 more than 50% were working in the public and personal services sector, this number fell to 40% in 1990. The upswinging sectors are banking and insurance (from 17 to 23%) and, even more strikingly, business services augmented their proportion of business economists from 13 to 20%. While the proportion in the insurance sector grew slowly but steadily (4.8–5.1–6.9–7.5), the attraction of the banking sector for business economists grew particularly between 1970 (7.5%) and 1980 (12.1) and then slowed down. A look at the domain of business services shows that “business consulting” and “financial services” were the most prominent new fields of employment for business economists. Industry, finally, also lost weight as an employer for business economists, and the construction branch remained unattractive to business economists—never has more than 3.5% worked in this domain.

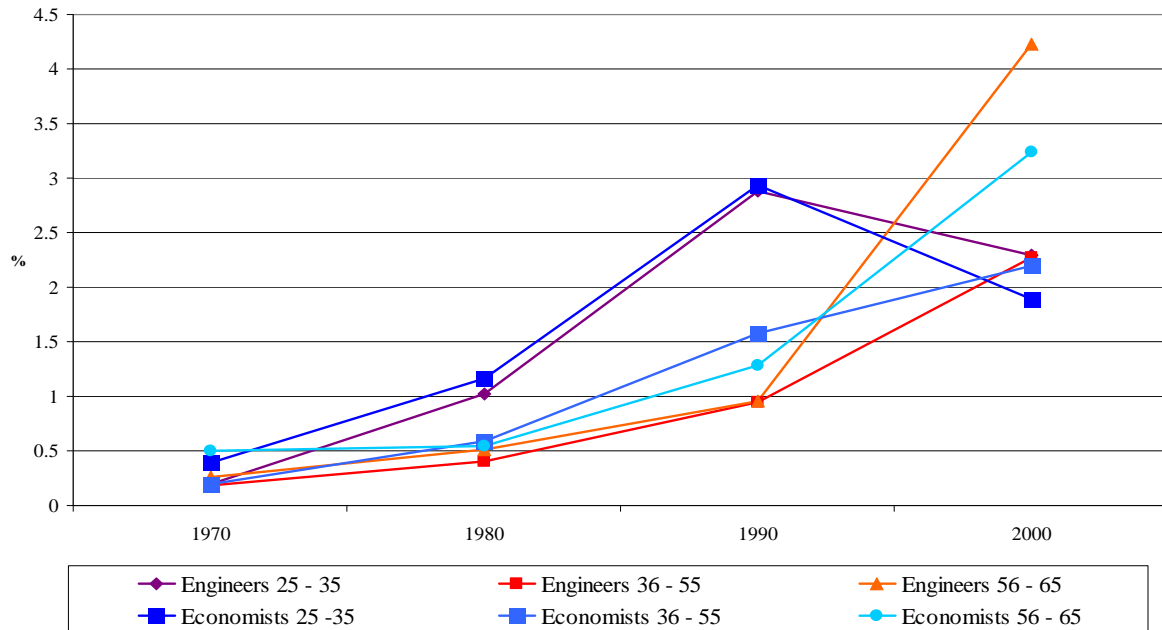
Unemployment?

The unemployment rate is another indicator employed to illustrate economic crisis. To understand its evolution over time, I examined the proportion of “jobless”⁹⁸ engineers and business economists based on the census data from 1970 to 2000.⁹⁹ I differentiated according to birth cohorts, separating beginning, middle, and late career.

⁹⁸ This category includes all people that are not economically active. It differs therefore from the category of the „unemployed“, who register at an administrative agency.

⁹⁹ As unemployment rates can be fairly volatile the 10 year rhythm far from optimal. This is particularly true for the period of the 1990’s where the general unemployment rate in Switzerland is relatively low at the two points of measurement (1990 and 2000) but increases rather dramatically in the middle, around 1994 and 1995. It is rather likely, that also for engineers and business economist holding an HOS degree this moment constituted a kind of a peak of unemployment. Unfortunately there are no better data available. Among the engineers and business economists surveyed by the SLFS none is unemployed during the 1990s (this shows again the limitations of these data when it comes to examine these specific occupations).

Figure 8: Jobless Rate of Engineers and Business Economists by Cohort (1970–2000)



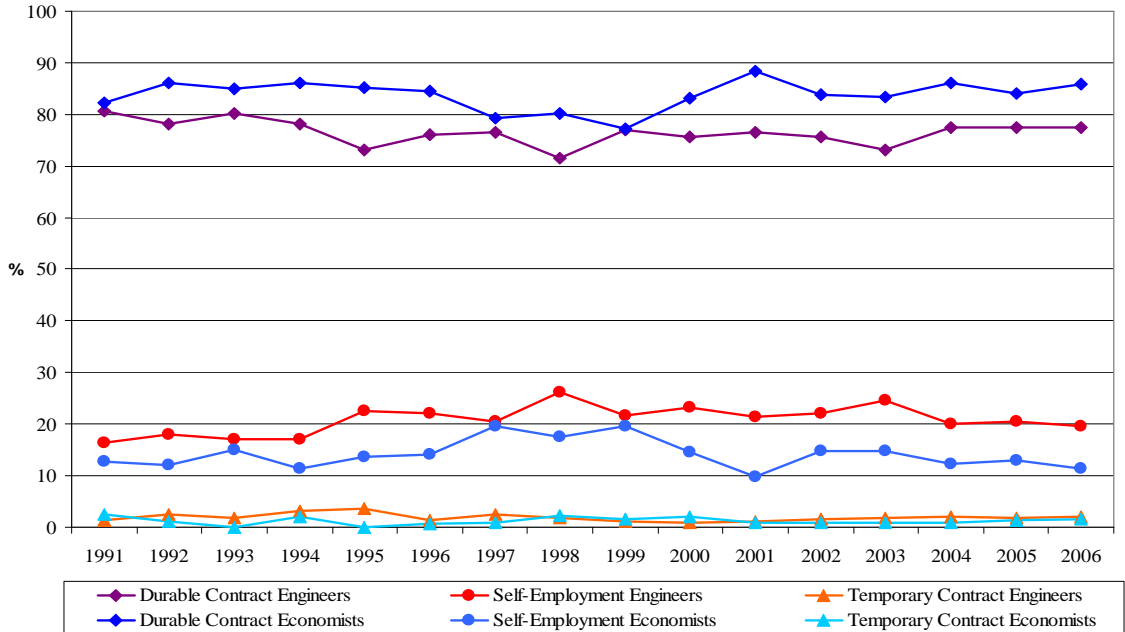
Source: Swiss Federal Census 1970, 1980, 1990, and 2000

A glance at results shows that the jobless rate of both engineers and business economists is steadily below the average Swiss unemployment rate. But, as did the Swiss average, their unemployment rates increased by 1980 and then especially from 1990 on. A look at the cohorts displays that particularly younger and older cohorts are affected, while the middle aged enjoy enhanced protection. In 1980 and 1990, particularly the younger struggled to enter the labour market, whereas in 2000, older employees seemed to be more and more concerned. In other terms, the crisis of 1990 led to an increasing casualisation of older employees and improved the situation of younger professionals in relative terms. The jobless rate of more than 4% of engineers aged 56 to 65 is rather considerable and is very likely to be related to changing firm policies, which no longer employ "supernumerary" senior engineers (Castel, 1995). The jobless elder engineers have, however, not necessarily in all cases been dismissed. It is possible, for example, that they profited from specific "transitional solutions" that the firms invented (or reactivated) in this period, as, for example, early retirement (Nadai & Maeder, 2006).

New Forms of Labour Contracts?

Another indication of changing personnel policies would be a significant modification of the compositions of the types of labour contracts. A decrease of durable contract shares in favour of more insecure and short-term forms of employment or an increase of self-employment could be a sign that engineers and business economists are affected by the crisis. I use the data of the Swiss Labour Force Survey from 1991 to 2006, coding the variable “labour status” into “durable labour contract”, “temporary labour contract (from 6 months to 3 years)”, “self-employed (including collaborating family members)”, and “other forms/do not know”.

Figure 9: Type of Employment Contract of Engineers and Business Economists (1991–2006)



Source: SLFS, 1991-2006.

Engineers and business economists are affected little by potentially new contracting policies of their companies: the proportion of durable contracts remains stable at a very high level, around 80%. Inversely, the proportion of temporary contracts remains also at a general low level. A slight rise of self-employment during the 1990s seems to be the only significant change. While this indicator falls again on about 10% for business economists in the wake of 2000, it remains at over 20% for engineers for a longer time. This could mean that engineers were more affected by the crisis of the 1990s than business economists were. It is possible that the increase of self-employed engineers was the result of increasingly ruthless dismissal policies of large-scale firms, which pushed engineers to become self-employed. On the other

hand, it is also possible that the increase of self-employed engineers is due to a wave of start-up firms and the reconstruction of the business founder as a heroic figure, for example, in the IT sector (Schallberger, 2004). However, as IT engineering in Switzerland is almost a monopoly of the ETH/ EPFL and remains marginal at the higher technical schools (see Meyer & Ryter, 1993), the group studied here is possibly less represented among this young generation of business founders.

Changing Opportunity Structures?

A first conclusion concerns the relative influence of the two crises on engineers and business economists. The crisis of 1974/75, although often conceptualised as an epochal historical break for a whole society, has no dramatic consequences for the actors of achievement careers. It appears mainly as a deindustrialisation process hitting—still very selectively—certain industrial sectors as the watch industry, machine industry, remaining textile industries, and the construction sector. According to commentators, the industry itself reacts with rationalisations and new work organisations, leading to a growth of “the tertiary functions in the industry (research, development, direction, and administration), the tasks of high qualification and the strongly automatic production (chemistry, energy)” (Levy et al., 1997: 192)¹⁰⁰ to the disadvantage of the less-qualified tasks. Because Swiss industry, already at this moment, is a highly specialised sector, producing for quality-oriented niches, its organisational functioning is not fundamentally put in question. It is "only" the less educated, the immigrants and the women in the peripheral routine tasks, who are affected. The engineers holding a higher occupational school degree hardly feel the crisis. One of the few repercussions is a rather slow migration to the service sector. However, the construction sector lost quite abruptly the half of its engineers. Business economists were even less affected by the 1970's crisis, as they worked to a much lower degree in the critical sectors. Banking and the service sector suffered only weakly and found their force quickly again. The business economists' sectoral migration flows were more steady and consisted mainly in a shift from less productive sections of the service sector (personal and public services) toward the two upswinging sections: financial services and business services. To conclude, the crisis of the 1970s is, in the first place, a *crisis of the margins* of the occupational world. Against the interpretation of most of the scholars and the common sense history periodisation, the "glorious" years were not completed per se but were restricted to a core of society that

¹⁰⁰ Translated by F.B.

continued to profit from its rewards. All signs so far indicate that the social climbers stemming from the lower middle classes are among this core.

Second, in Switzerland, there are only weak signs of a creeping but systematic erosion of the bureaucratic principles as a shortening of career ladders, a deconstruction of hierarchical positions, or a decline of traditional forms of large-scale firms. The supposed decline of large firms is the product of a kind of an over interpretation in the beginning of the 1990s, which has not been confirmed in recent years. Contraction of the promotional space and deconstruction of clear-cut positions are difficult to study and to formulate as a general and homogeneous trend. Without a doubt, these phenomena do occur in Switzerland. It is, however, difficult to say what they really mean, how general they are, and whether they would necessarily lead to a decline of achievement careers as such. The thesis of the deconstruction of hierarchical position, in addition, may make more sense in the French context, dominated by "status" and the prevalence of formal links between educational credentials and occupational positions. The lesser importance of formally defined positions—at least in their subjective form—is even more pronounced in the case of HOS engineers and business economists. They typically insist on "performance" and "merit" to the disadvantage of "status" and "right" and are therefore not primarily concerned by the deconstruction of clearly defined positions.

Unlike the depression of 1974, the crisis of the 1990s seemed to shake thoroughly the core-groups of the "trente glorieuses". The liberalisation of the markets and new modes of financing deeply transformed the organisational functioning of Swiss banking and industry. The 1990s are thus a period of major organisational restructuring, which affected better-educated male employees pursuing an achievement career. The following concentration, internationalisation, and financialisation of the banking and industry hit careers transitionally and structurally. The policies of loyalisation, which were established in the 1930s to assure the commitment of a central group of employees in a long-term perspective (König et al., 1985), were increasingly replaced by short-term decisions, which ruthlessly put an end to the careers of employees with formerly "outstanding merits". The consequences expressed themselves, for example, in terms of unemployment of groups that to date have been protected as the core of the system of organised capitalism. In the 1990s, engineers and business economists with a higher occupational school degree were concerned by unemployment, especially the older engineers.

5.5 The Transformation of the Family Situation

Scholars have shown that in the early twentieth century, the growing middle classes began to imitate the bourgeois family model (König et al., 1985). The establishment of this model in ever larger parts of the Swiss population was paralleled and facilitated by the struggle of the male employees for an exclusion of married women and mothers from the labour market (Wecker et al., 2001; Christe et al., 2005; König et al., 1985). How did this relationship develop from 1970 to 2000, and what influences did these changes have on the careers of engineers and business economists?

Macrosocial Changes of the Family Structure

On a very general level, the situation of the Swiss family from 1970 to 2000 is characterised by four partially interrelated trends: First, the marriage rate has significantly declined and the average age at marriage has simultaneously risen. In 1960, almost 95% of women (and 93% for men) married; these numbers were at 65% (60%) in 2002—even though most of this, at first sight, dramatic change is due to a spread of cohabitation without marriage (Kellerhals & Widmer, 2005). During the same period, the age at the first marriage has risen from 24 to 29 years for women and from 26 to 31 for men. Second, family sociologists observe that Switzerland, in accordance with most of the Western societies, has seen a steep rise of the divorce rate, in particular from the late 1960s on. In 1970, 15 of 100 concluded marriages were divorced; in 1990, it was 33, and in 2002, 40 (Kellerhals & Widmer, 2005). Third, the average number of children decreases: fecundity declined from 2.44 in 1960 to 1.4 in 2002 (Kellerhals & Widmer, 2005). Finally, the trend historians observed already in the 1950s and 1960s was that the increase of the female labour market participation was corroborated in the last decades, but not linearly, and was paralleled by a trend towards part-time work. In 2001, 78% of men and 58% of women partook in the labour market. However, while only one of ten men worked part-time, this proportion rose to 50% for women (Falter et al., 2001).

The influence of these general trends on the articulation between family and male careers is not easy to examine, and a transposition of these general results on business economists and engineers is very problematic. On one hand, the new types of family organisation may be an adaptation to the spread of the career as occupational trajectory; on the other, we do not know how the increased labour market participation of women changes male careers. To better understand what happens, I must analyse the specific situation of engineers and business

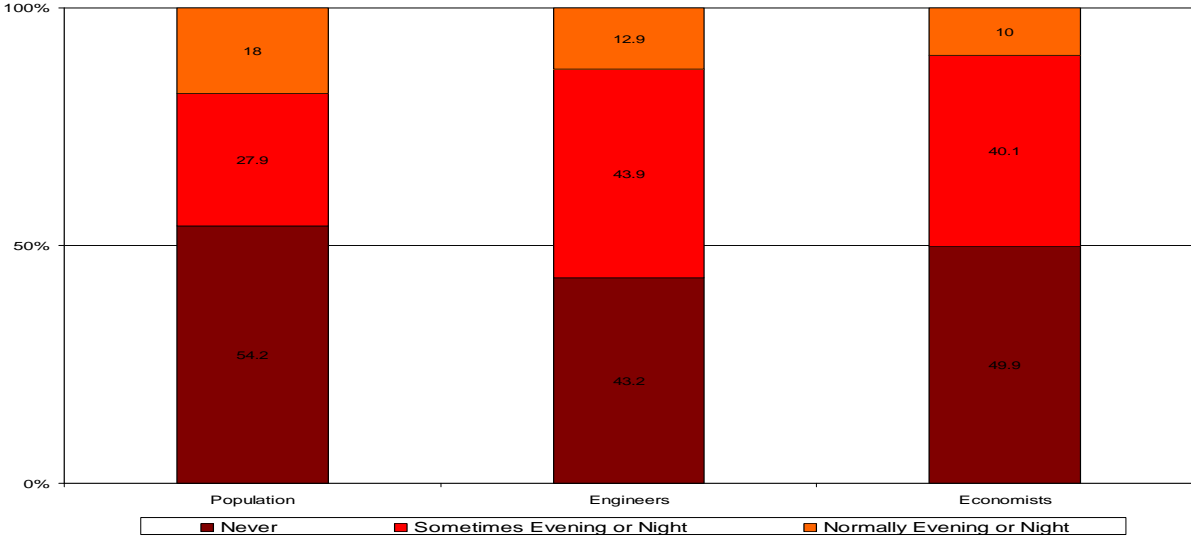
economists. In sub-chapter 3.3 I sketched two possible reaction strategies: First, career candidates live in milieus that are relatively spared of these trends. Second, they are confronted with real tradeoffs between career and family. To these, they could react by postponing family starting, by experiencing more marital conflicts, and thus, by increasing the separation/divorce rates or by renouncing to career to the advantage of family.

In the following lines, I analyse the social origin of partners and their occupational engagement. In addition, I examine the typical family trajectories of engineers and business economists. These give first insight in the family situation from a biographical angle and at, a later stage, can be related to occupational trajectories.

Occupational Investment of Engineers and Business Economists

Do career occupations require a higher occupational investment than the average occupations? To respond to this question, I use data indicating whether an individual is working in the evening or at night. I coded the overtime work into "never", "sometimes evening or night", and "normally evening or night". In this way, I can distinguish those who work overtime from those who work regularly at night.

Figure 10: Evening/Night Work of Engineers, Business Economists, and Active Population (2005)



Source: Swiss Labour Force Survey, 2005

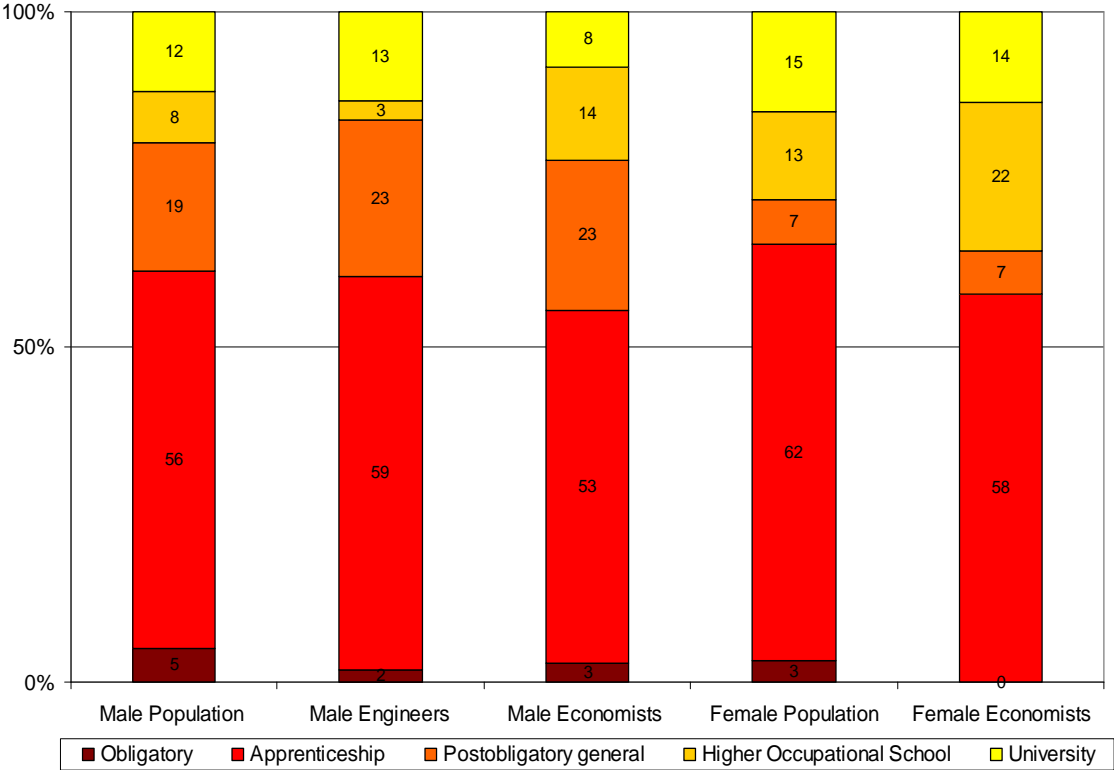
Figure 11 shows that in 2005, the groups of engineers and business economists were significantly working more during evenings and nights than the average active population. More than 40% worked sometimes at evenings or at night against 28% for the average population. These results, however, have to be interpreted carefully: this might also be due to

specific cohort memberships of engineers and business economists (compared with the population—see sub-chapter 5.4) to the difference between private and public employees or other reasons. I make the hypotheses that to pursue a career still requires an extraordinary temporal occupational engagement and is potentially difficult to reconcile with an active family life and the raising of children.

Career and the Choice of Partner

To determine the affinity of engineers and business economists to the bourgeois family model, I examine their partner’s educational level, their employment status, and their employment rate in 2005. I analyse the SLFS data of 2005 since the data on career were collected that year. I give attention to the temporal aspect by an analysis of three cohorts, those in 2005 aged 25 to 35, those aged 35 to 45, and those aged 45 to 65. As this aspect may vary strongly according to the sex, men and women are analytically separated in a first step¹⁰¹. Aliens have been excluded to avoid comparison with a particularly poorly educated group, which in addition may chose the spouse “culturally” and differently.

Figure 11: Partner's Educational Level of Engineers, Business Economists, and Active Population (25–35)

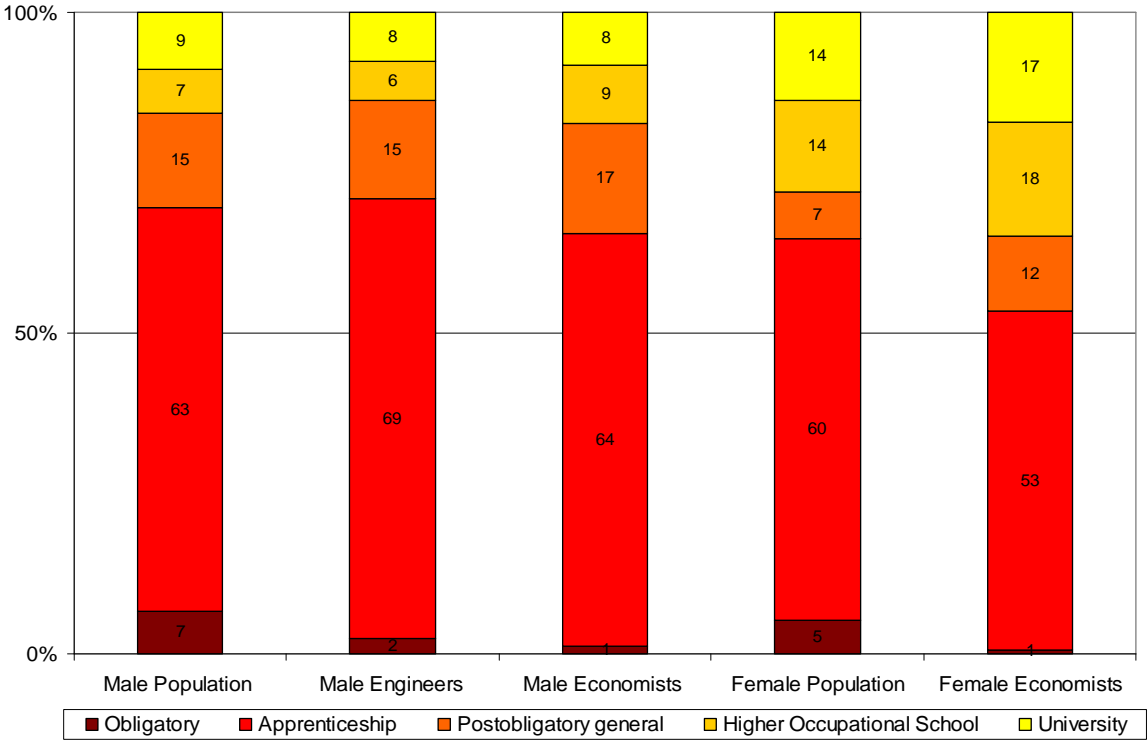


Source: SLFS, 2005. Employed include apprentices. Aliens are excluded.

¹⁰¹ When it is possible only. Women are still so rare among engineers, that it is not worth to examine their male partner’s social origin.

Figure 11 indicates that the educational level of the partner of the youngest cohort of male engineers and business economists, aged at the time of the study between 25 and 35, is not significantly different from the one of the partner of the male population as a whole. Both groups chose slightly fewer partners among those with only compulsory education. The proportions of those with an apprenticeship is a bit higher for the engineers and lower for business economists in comparison with the male population; the partners with a post-obligatory general education are a slightly overrepresented in both occupations. Engineers of this cohort chose fewer partners with a higher occupational school diploma than the population at large, but slightly more with an university degree. The distribution is inversed for the business economists. By contrast to the men who seem to be very close to the average male population, the partners of the female economists possess in greater proportion a higher education degree, and none of them has merely a degree of compulsory school. This could be described as a slight female hypergamy.

Figure 12: Partner's Educational Level of Engineers, Business Economists, and Active Population (35–45)

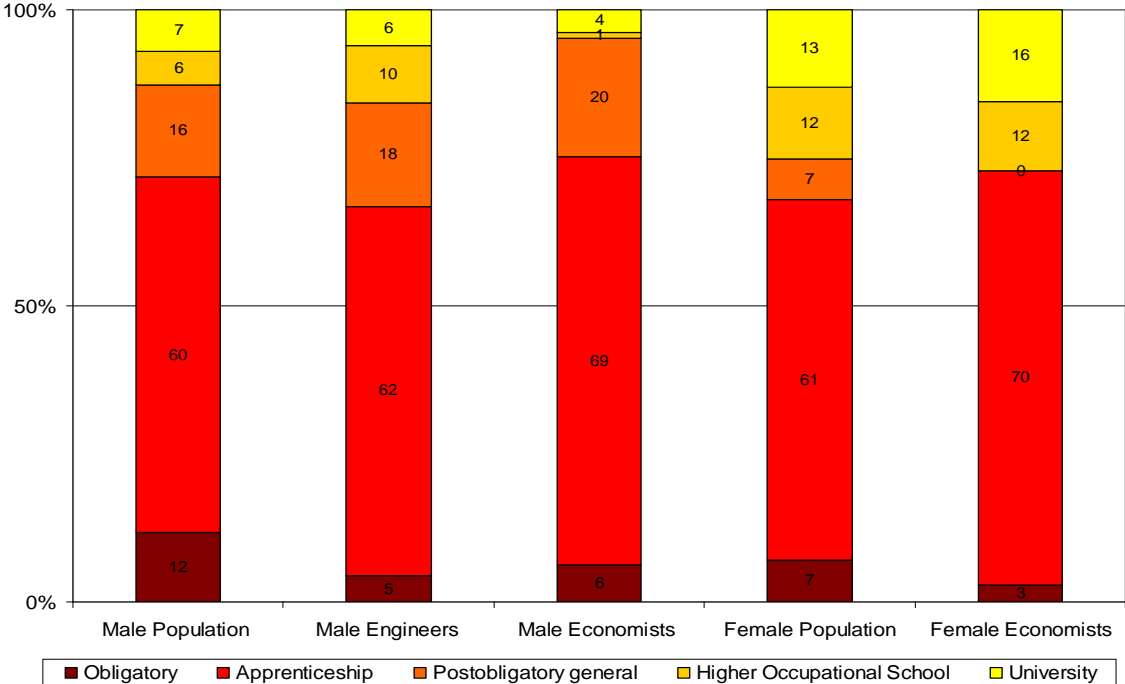


Source: SLFS, 2005. Employed include apprentices. Aliens are excluded.

Figure 12 applies the same analytical procedure to the cohort aged 35 to 45 in 2005. In absolute terms, we see that, supposedly due to the expansion of the educational system, fewer people dispose of a higher occupational school or university degree and slightly more merely

attended compulsory school. Relatively, however, the educational level of the male engineers and business economist partners does not change compared to the youngest cohort—they are still very close to the educational level of the partners of the male Swiss population. Relatively, the same is true for the partners of the female business economists: they have a slightly better educational level than the average partner of Swiss women and only 53%, compared to 60% in general, attend an apprenticeship.

Figure 13: Partner's Educational Level of Engineers, Business Economists, and Active Population (45–65)



Source: SLFS, 2005. Employed include apprentices. Aliens are excluded.

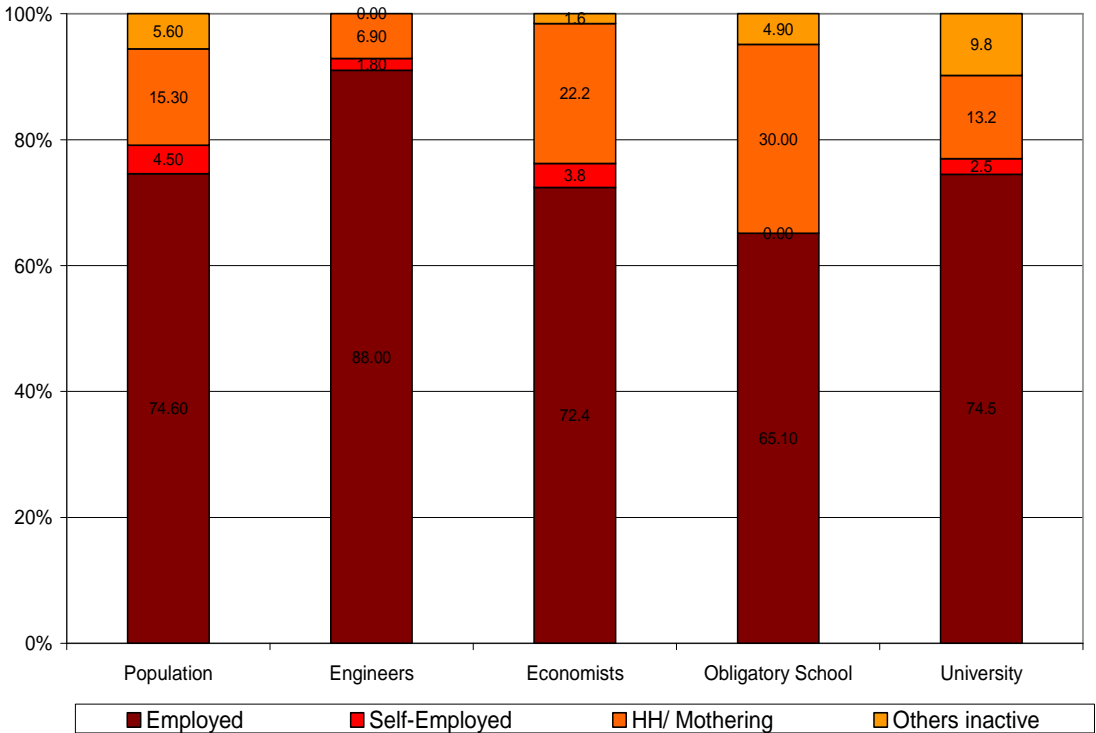
Figure 13 covers the cohort aged 45 to 65 in 2005. Besides the fact that it confirms the trend of an expansion of higher education, it does not contribute any further information to the analysis, nor does it inverse any of the trends discussed previously.

I conclude that the partners' educational level of male Swiss engineers and business economists holding a higher occupational school degree is very close to average partner's educational level of the male Swiss population. This relationship remains rather stable over the three cohorts. Only the general educational level of the partners seems to increase, in line with the increase of the general educational level. A glance at the relationship between their own educational level and the educational level of their partners shows that, in all three cohorts, very few couples are exactly homogamic (i.e., have the same educational level) or hypogamic (the female partner has a higher educational level); however, as already

mentioned, with respect to this dimension, they are not very different from the Swiss male population as a whole. The partners of the female business economists are slightly better educated than are the partners of the Swiss women in general. Their relationships are slightly hypergamic. It is therefore difficult to draw very clear and meaningful conclusions.

The analysis must now be completed by a look at the economical activity of the (female) partners. I therefore compare the employment status of the engineer and business economist's partners to those of the partner's individuals with a university degree, an obligatory school degree, and finally the population. I distinguish the following categories: employed, self-employed, household or mothering (these are individuals who indicate either that they are unemployed because they make home or because they are mothering), and other types of inactivity (education, illness). Again, I differentiated according to the same three cohorts (see definitions above in the section on the educational level) and excluded aliens from the analysis. The inclusion of particularly poorly and well-educated groups should allow for a more precise evaluation of the behaviour of engineers and business economists. This time, I concentrate on female partners only.

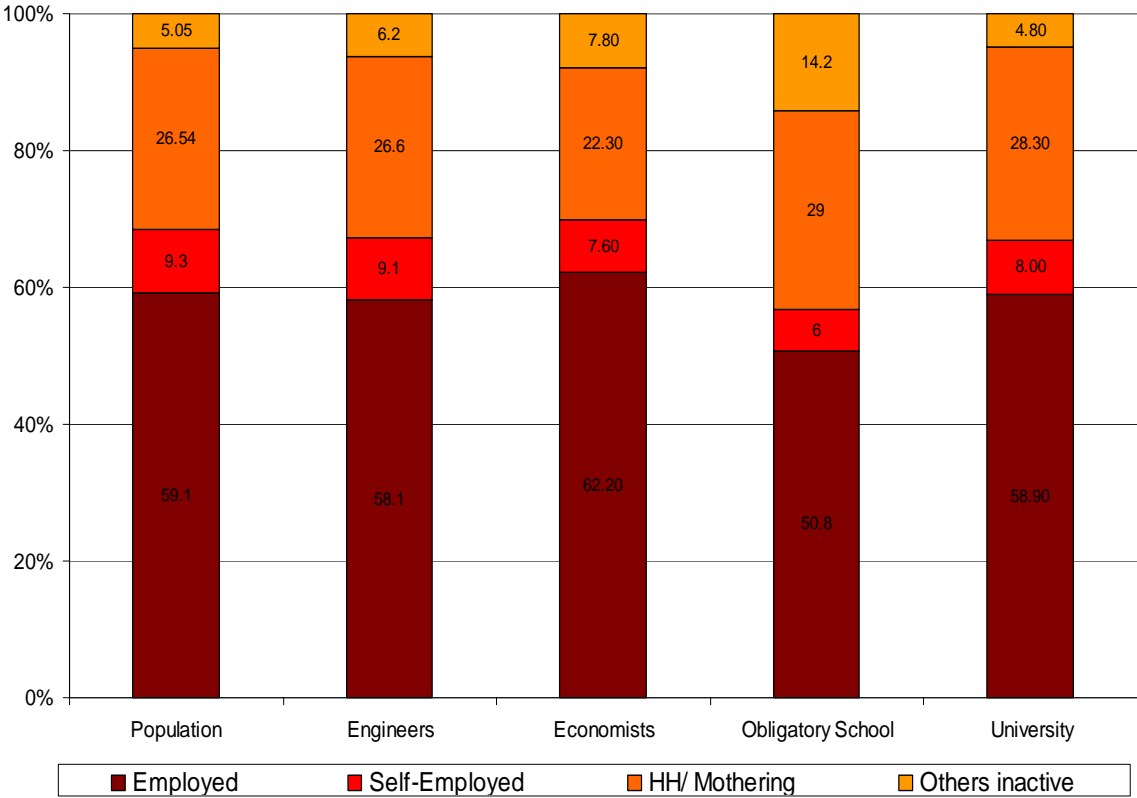
Figure 14: Partner's Employment Status of Engineers, Business Economists, and Active Population (25–35)



2005.
 Source: SLFS, 2005. Employed include apprentices. Self-employed includes “employed by own firm”. Aliens are excluded.

Figure 14 shows the division of different employment statuses for the cohort aged 25–35 in 2005, comparing the male HOS engineers and business economist’s partners to the partners of the male population as a whole, to the male obligatory school degree holders, and to the male university degree holders. In general, this younger cohort is employed in a larger proportion than the ones aged 35–45 and even than those aged 45–65. Compared to the other groups, the partners of HOS engineers are to a larger degree employed; the business economists are close to the average male population and the male university degree holders.

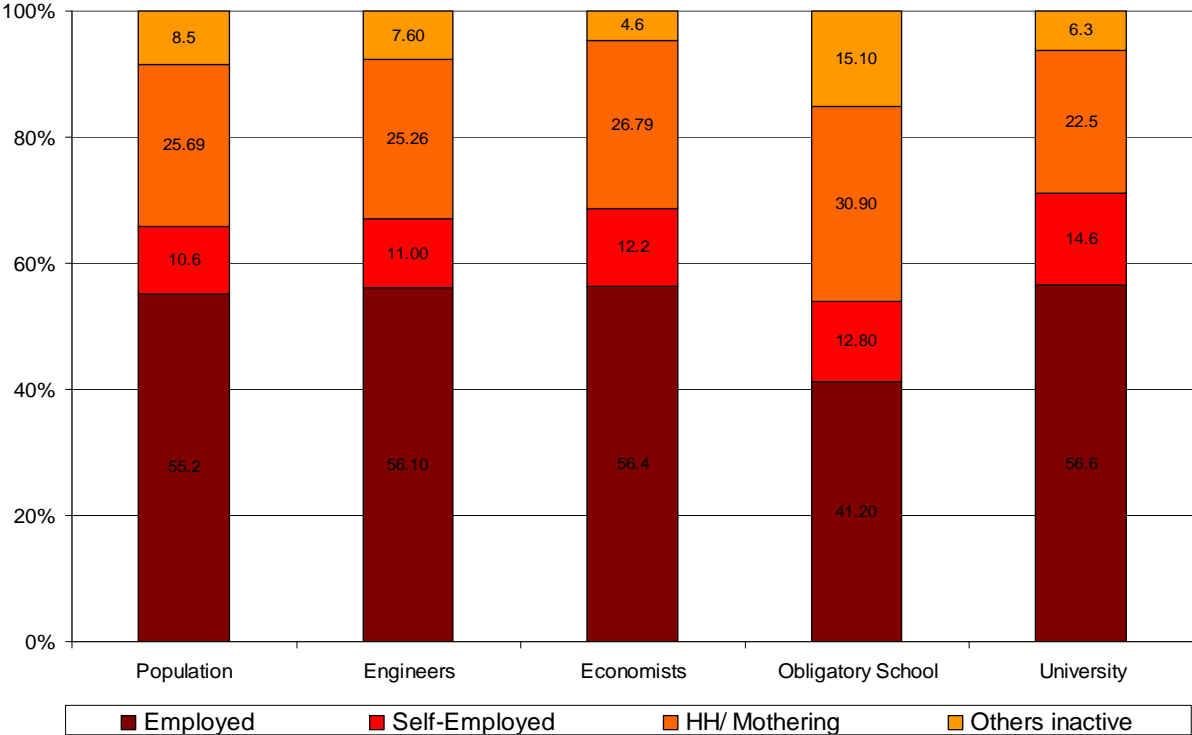
Figure 15: Partner's Employment Status of Engineers, Business Economists, and Active Population (35–45)



Source: SLFS, 2005. Employed include apprentices. Self-employed includes “employed by own firm”. Aliens are excluded.

In figure 15, the exception of the HOS engineer’s partners disappears. The female employment, with about 60%, is now significantly lower than in the cohort aged 25–35. The patterns of all the groups, with exception of those who attended only compulsory school, are rather similar. In the group of those with an obligatory school degree, there is a greater proportion of individuals with the status “inactive for other reasons”.

Figure 16: Partner's Employment Status of Engineers, Business Economists, and Active Population (45–65)



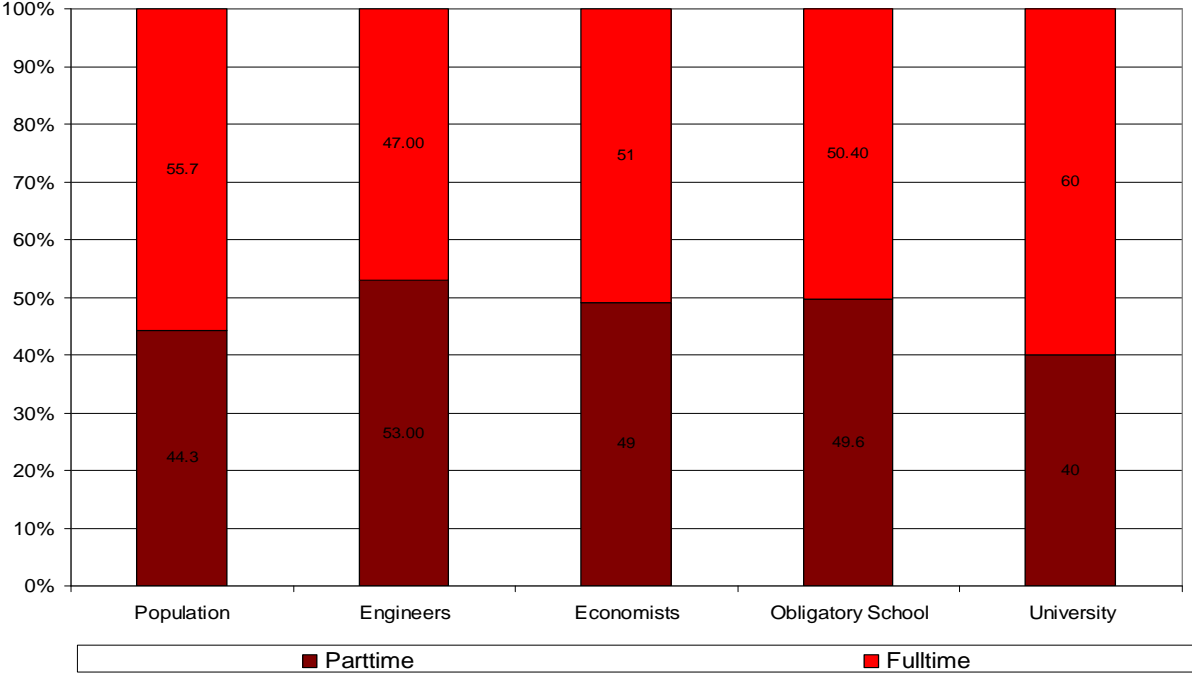
Source: SLFS, 2005. Employed include apprentices. Self-employed includes “employed by own firm”. Aliens are excluded.

For the oldest-age class, the result resembles the ones of the middle cohort. The distribution of the employment status of HOS engineer and business economist’s partners is similar to the one of the partners of university degree holders and the one of the population as a whole. Only the partners of the ones who count the compulsory school as their highest degree are less employed because they are slightly more often keeping the household and are considerably more inactive for other reasons.

Two-thirds of the partners of male engineers and business economists are employed; about a quarter are housekeeping or mothering. There are no significant differences between engineers and business economists, nor between these and the other groups. Neither the partners of the poorly educated nor the spouses of the university-educated men are more employed than engineers and business economists. To the contrary, the partners of the ones who have merely attended compulsory school are even slightly less likely to participate in the labour market. The comparison of the three age groups does, it seems, reflect changes that are due to the position in the life cycle. With the available data, it is not possible to predict how the youngest cohort will develop in the future.

A glance at the employment rate of the partner clarifies the question further. In this analysis, the same definitions of cohort are employed (see above), and the aliens are excluded. Full-time and part-time employed partners are distinguished and examined according to engineers, business economists, and men holding an obligatory school degree and a university degree, respectively. Full-time is defined as a workload of 36 hours or more per week, and part-time defined as less than 36 hours per week.

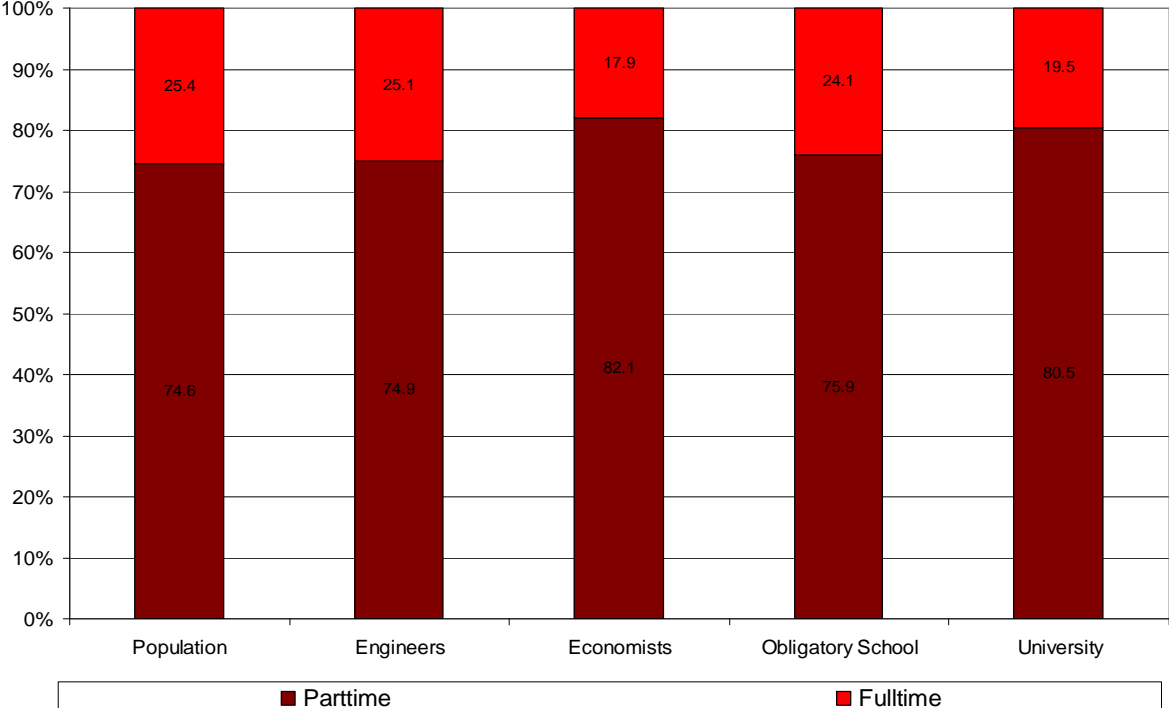
Figure 17: Partner's Employment Rate of Engineers, Business Economist, and Active Population (25–35)



Source: SLFS, 2005. Full-time = 36 hours and more. Aliens are excluded.

Figure 17 indicates the employment rate of the economist and engineer’s partners (for the cohort aged 25–35 in 2005) compared to the employment rate of the partners of the whole male population, the partners of the male university degree holders, and the partners of the men who attended compulsory school as the highest educational level. It seems that the proportion of those who work part-time is slightly higher among the partners of HOS engineers and business economists is slightly higher than the proportion of the partners of the average male population or the university degree holders.

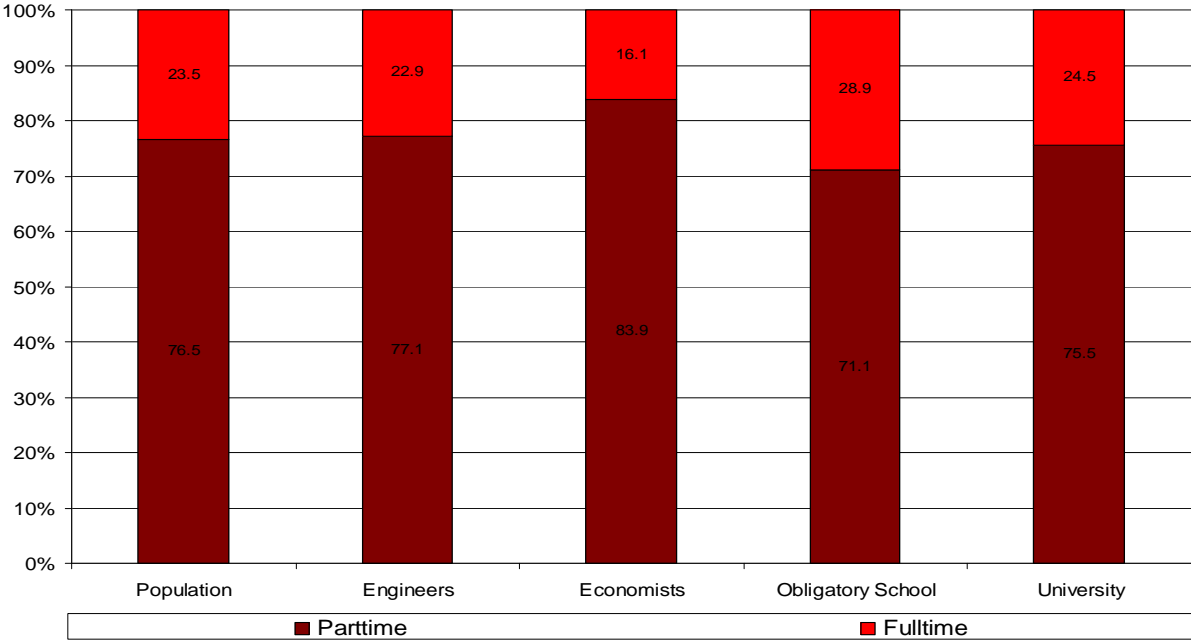
Figure 18: Partner's Employment Rate of Engineers, Business Economist, and Active Population (35–45)



Source: SLFS, 2005. Full-time = 36 hours and more. Aliens are excluded.

A glance at the cohort aged 35–45, however, suggest that this difference may be due to the position in the life cycle. Here the proportion of part-time employed is generally considerably higher—clearly over 70%. Between the groups there are hardly any significant differences.

Figure 19: Partner's Employment Rate of Engineers, Business Economist, and Active Population (45–65)



Source: SLFS, 2005. Full-time = 36 hours and more. Aliens are excluded.

The employment rate of the female partners of the groups of the cohort aged to 45 to 65 in 2005, displayed in figure 20, are even a little bit lower than the one in the middle cohort. This could be due to the increasing labour market participation of Swiss women between 1980 and 2000 (Sutter, 2005). It appears that the partners of the male engineers and business economists are not more frequently part-time employed than the average occupationally active women.

All in all, these results are not very conclusive. On none of the three dimensions—educational level, employment status, and employment rate—are the spouses of HOS engineers and business economists distinguishing themselves significantly from the spouse of the average Swiss man. There are differences according to the age group, but these rather reflect the position in the life cycle (employment status) or general generational developments such as a general increase of the educational level or a general increase of the female labour market participation. However, the differentiation among cohorts does not affect the relationship between HOS degree holders and the other groups included in the analysis. This means that still today, social climbers are not particularly actually affected by the modernisation of the family model. On the other side, they are also not specifically traditional; their spouses neither do less nor participate differently in the labour market.

Potentially Increasing conflicts between Career and Family

To test the postulate of increasing conflicts between career requirements and modern family forms, in the following table, the evolution of proportion of singles, married, and separated (by death of the partner or divorce) for 1970, 1980, 1990, and 2000 are compared. I distinguish three age groups: those who are in the beginning of their careers (25–35 years), those who are in the mid-career (35–45 years), and those who are in later career phases (45–65).¹⁰² In addition, I compare the proportions of engineers and business economists with those of the average, economically active population.¹⁰³

¹⁰² In Chapter 8 I will refer to these three phases as „trial phase“, „ascension phase“ and „cooling out“.

¹⁰³ It was also considered to include a comparison with the group of Swiss citizen only (excluding aliens). This comparison however, reveals no significantly different results than the one with the residential population.

Table 7: Family Status According to Age Class of Engineers, Business Economists, and Population (1970–2000)

	POPULATION			ENGINEERS			BUSINESS ECONOMISTS		
	Single	Married	Widow + Divorced	Single	Married	Widow + Divorced	Single	Married	Widow + Divorced
1970									
25-35	23.0	74.9	2.2	22.5	76.0	1.5	35.1	60.8	4.0
36-45	11.2	84.7	4.1	4.8	92.5	2.7	17.6	74.5	7.9
46-65	11.9	77.6	10.5	3.3	92.9	3.8	17.1	70.4	12.6
1980									
25-35	30.2	65.5	4.3	30.7	66.8	2.6	35.9	58.8	5.2
36-45	10.8	81.7	7.5	5.7	89.1	5.2	12.1	78.6	9.4
46-65	9.7	79	11.3	2.5	91.8	5,7	8.6	80.4	11.1
1990									
25-35	40.2	56.5	3.2	45.6	52.7	1.7	47.8	49.3	2.8
36-45	13.8	77.1	9.0	10.1	84.0	5.9	14.0	76.9	9.2
46-65	8.7	77.7	13.6	3.1	88.7	8.2	7.1	80.9	12.1
2000									
25-35	48.7	48.0	3.3	57.5	41.1	1.4	59.0	38.3	2.7
36-45	18.7	72.4	8.9	17.7	76.6	5.6	23.8	68.2	8.0
46-65	9.4	75.2	15.4	4.7	85.6	9.8	9.0	77.2	13.7

Source: Swiss Federal Census, 1970, 1980, 1990, 2000

The first trend catching the eye is that, in recent years, the average Swiss resident marries later and divorces more. In 1970, 75% of people aged 25–35 were married, whereas it was only 48% in 2000. For the individuals aged 36–45, the proportion of divorced more than doubled from 4.1% in 1970 to 8.9% in 2000, and the one for the age group 46–65 multiplied by 1.5, from 10.5% to 15.4%. But how are engineers and business economists situated relatively to the average population?

Especially among elder groups, the share of married engineers is higher than the one of the population and slightly higher than the one of business economists. Not because they marry more, but because they divorce less. Engineers are less often divorced than the average population, and they are significantly less often divorced than business economists. Second, the age of marriage of engineers followed quite exactly the one of the average population until 1980. Only from 1990 on did the age at marriage seem to rise at and now at a quicker speed than the one of the average population. By 2000, the group of 25–35-year-old engineers

was significantly less often married than the average and was comparable to the business economists.

This evolution from the 1970s on would suggest that, in fact, there seems to be an increasing conflict between family and career. Confronted with these tensions, engineers react more with a postponement of family than with more separations and divorces. The increasing age of marriage in the 1990s could reflect a kind of a retarded emancipation of their usual partners or—more probably in my eyes—a transformation of the labour market situation for engineers.

Business economists are characterised by low marriage proportions and simultaneously by high shares of single and divorced populations. Even if, in the end, business economist do not marry less than the average population, on the duration of the whole period of observation, the age group 25–35 is always married clearly to a lesser degree than the average population. What catches the eye are the continuously high shares of divorced business economists. Even though this was particularly pronounced in the 1970s and from then on was steadily approaching the average rate of divorced, in 2000, they were still, in all age groups, significantly more divorced than engineers.

As the partners of business economists are socially very close to the ones of engineers, these differences are possibly a result of a different articulation between family and occupational life. The problems to conciliate the two domains and the conflicts seem to be greater for business economists. Even though the ages of marriage of engineers and business economists seem to have approached in recent years, it is quite possible that business economists and engineers pursue different kinds of careers, implying differing degrees of temporal or emotional investment.

Family Trajectories

In this sub-chapter, I focus on the compatibility of family and career in sequential terms. I examine which family trajectories are typical for engineers and business economists and how these are influenced by their occupational careers. In other words, at later moments of the analysis, these family trajectories can be related to occupational trajectories and can potentially inform us of functional or power-related links between familial and occupational trajectories. To describe the family trajectories, I realise a multi-channel optimal matching analysis of the conjugal and parental trajectories. This means that two channels are included:

"conjugal events" and the different "stages of parenthood". The data used in this section stem from the section on the family from the FH Schweiz Survey (see appendix 1).

The classification enables me to grasp the conjugal strategies that could facilitate the pursuit of a male career (i.e., the waiver of a relationship in the early and crucial stages of the career). On the other hand, this could also be a result of particularly traditional relationships in which the spouse disburdens her career-pursuing partner (with housework or caring about children) and helps him pursue his career without being "disturbed" by domestic work. Or alternatively, some could desire having a family—which may be important to give the picture of a harmonious family in the occupational sphere—but not being bothered with the time and energy-consuming aspects of the familial life.

Optimal Matching Analysis

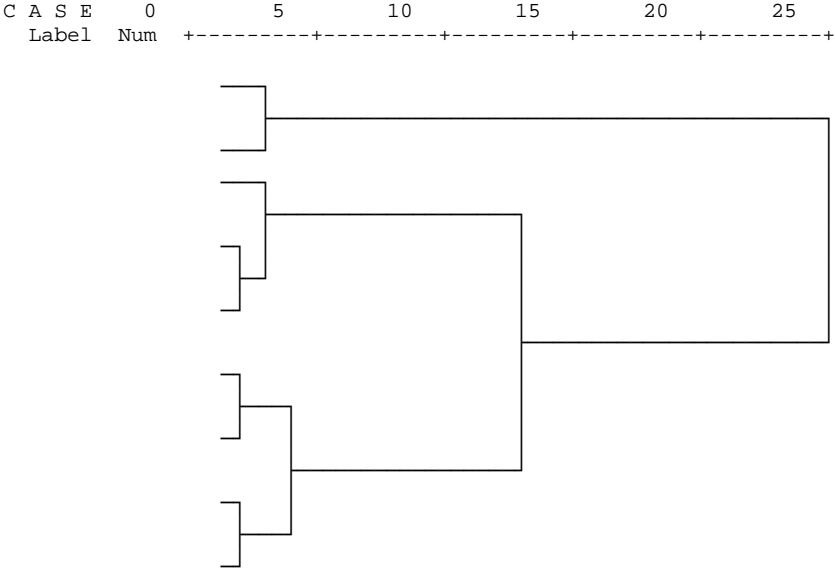
The conjugal stages have been coded in "single", "relationship without cohabitation", "cohabitation without marriage", "marriage", and "separation" (including informal separation, divorce, and widowhood). The second channel conceptualises the parental trajectory, by distinguishing stages of child caring with varying intensity. I distinguished between a stage "without children", a "pre-scholar stage" (0 to 4 years), a "scholar stage" (5 to 12 years), an "adolescent stage" (13 to 18 years), and an "adult stage" (19 and more). If the couple is raising several children, the temporal boundaries of stages were defined by the arrival of the first and the departure of the last child in this phase. In case of long intervals between the birth of children, this could mean that a couple, after a scholar stage, returns to the pre-scholar stage with the birth of the last child. I assumed thereby that especially the pre-scholar and maybe the adolescent stage as well require an amplified engagement from the parents and therefore have to be examined particularly closely.

For cost attribution, I used an empirical distance matrix based on the number of changes between different states, as observed in the sample. To be able to compare the results with the career typology, the individual trajectories were restricted to the ages 20–45. A slightly higher number of missing data forced me to reduce the number of included cases to 385.¹⁰⁴ Then a ward-clustering procedure was applied to the distance matrix produced by the align algorithm of the multi-channel optimal matching analysis. These produced a series of clustering options

¹⁰⁴ It looks as if respondents more frequently refused to fill out this private and intimate part of the questionnaire.

from which I had to choose the optimal solution. This decision about the number of cluster is a mix between an analysis of intra- and extra variance (by the stopping rules) and an evaluation of the sociological and heuristic value of the different solutions.¹⁰⁵ Also, a dendrogram has been used, as shown in the next figure.

Figure 20: Dendrogram (with Rescaled Cluster Distance)

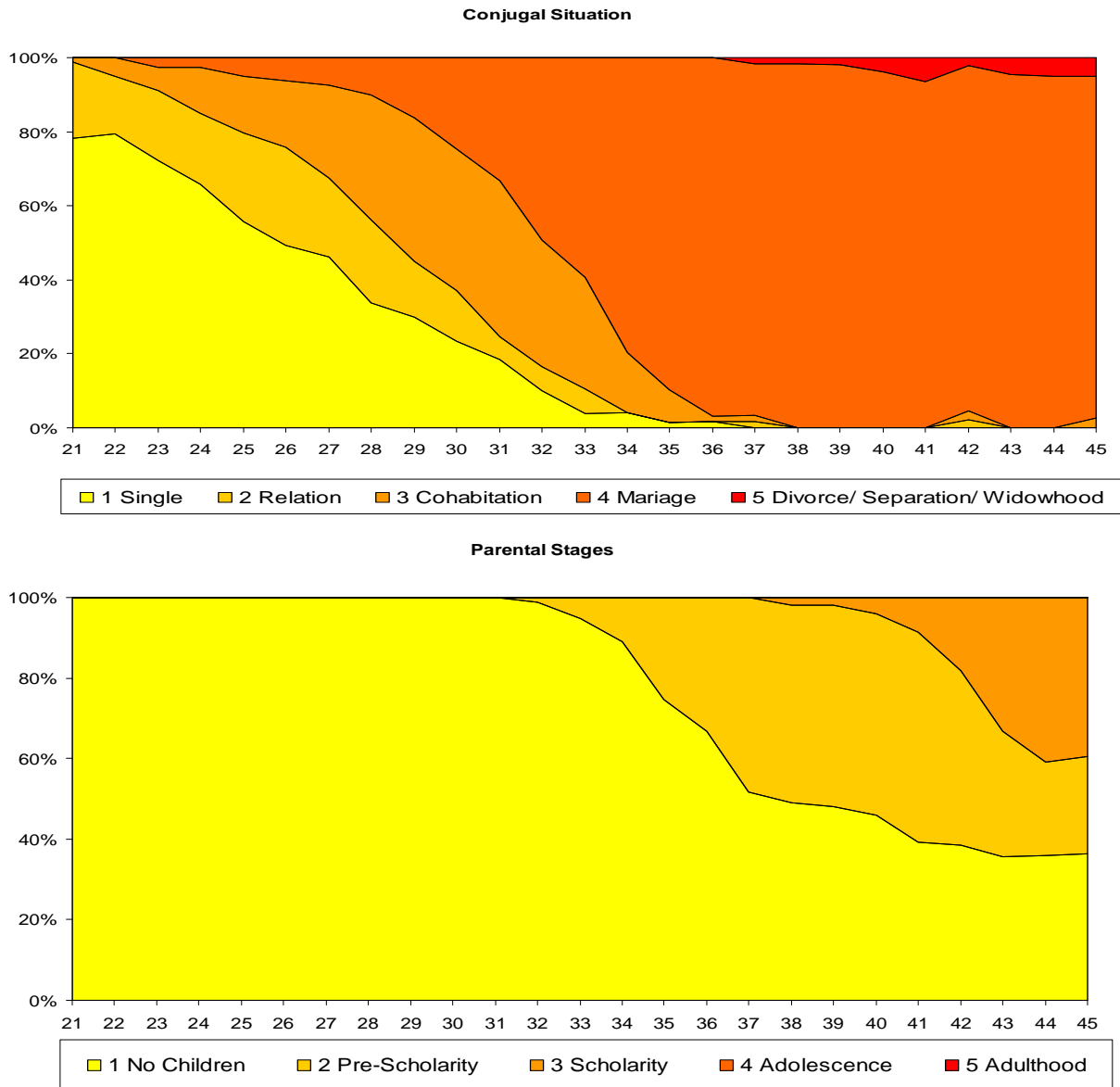


The dendrogram, in accordance with the stopping rules, indicates that four solutions distinguish themselves rather clearly from the others (with a large distance), and from then on, the situation no longer very clear. Possibly another six solutions can be distinguished at the next point, which would lead to a ten-cluster solution. For reasons of distance, parsimony, and social readability, the four-cluster solution was preferred.

¹⁰⁵ From the 5th cluster on, the algorithm seems to reduplicate already existing clusters with an only slightly delayed arrival of the first child (as the only difference). As additionally the 4-cluster solution seems to make sense sociologically I decided for this solution.

Four Types of Family Trajectories

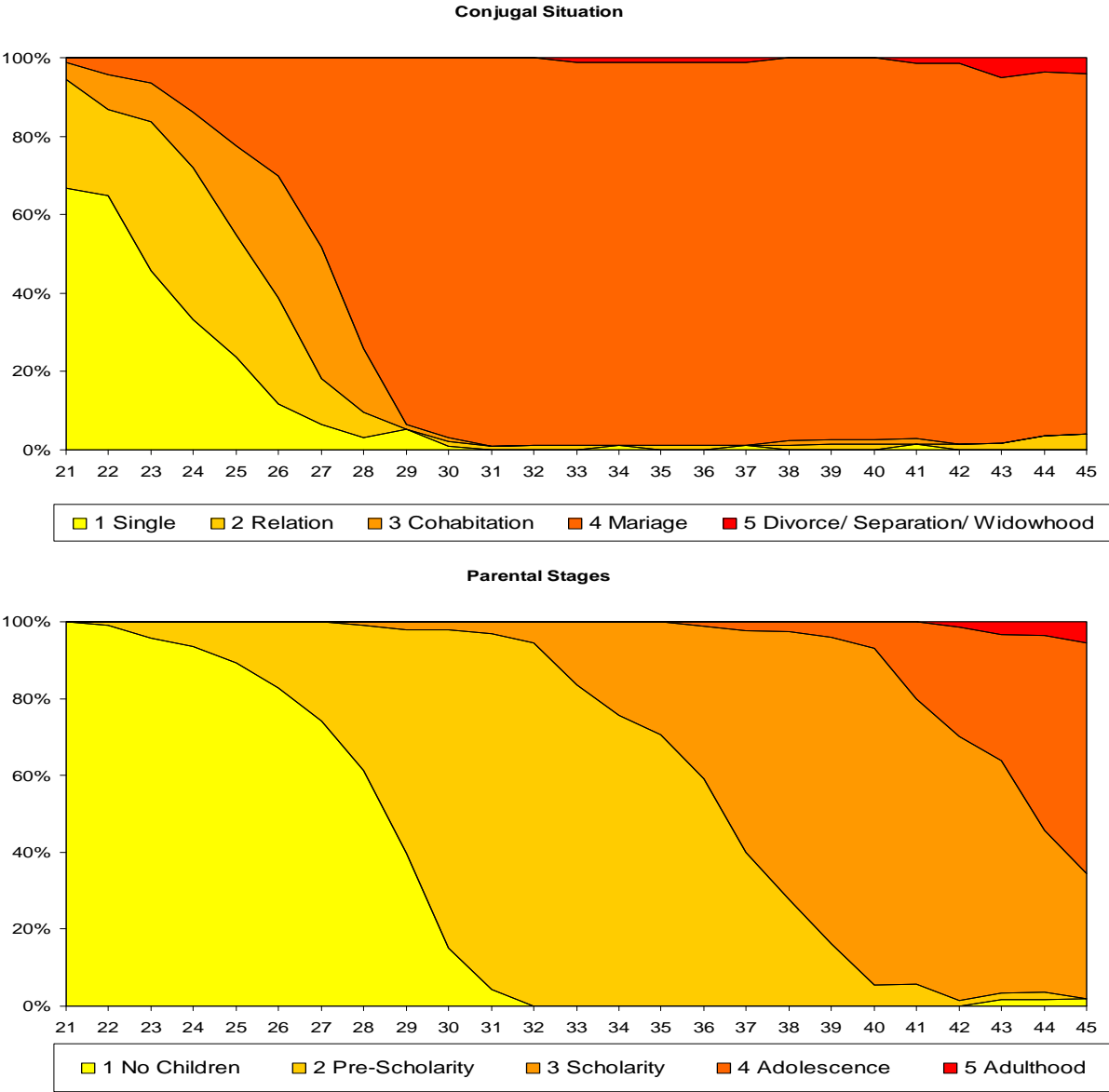
Figure 21 : Marriage, very late children (N= 81; 21.0%)



The first group is composed of people who, despite a relatively early age of cohabitation and marriage, are having children only some years later. They go through an average period of 5.59 years of single living, as well as through a comparatively long transition of relationship (2.14 years) and cohabitation without marriage (3.22 years) preceding the wedding. But what distinguishes them from other types of married couples is the rather loose temporal link between marriage and the birth of the first child. In fact, a considerable part of them stay childless at least for some years after the marriage. In addition, the birth of the first child at an average age of 37 years is very late, not only in comparison to the population as a whole, but

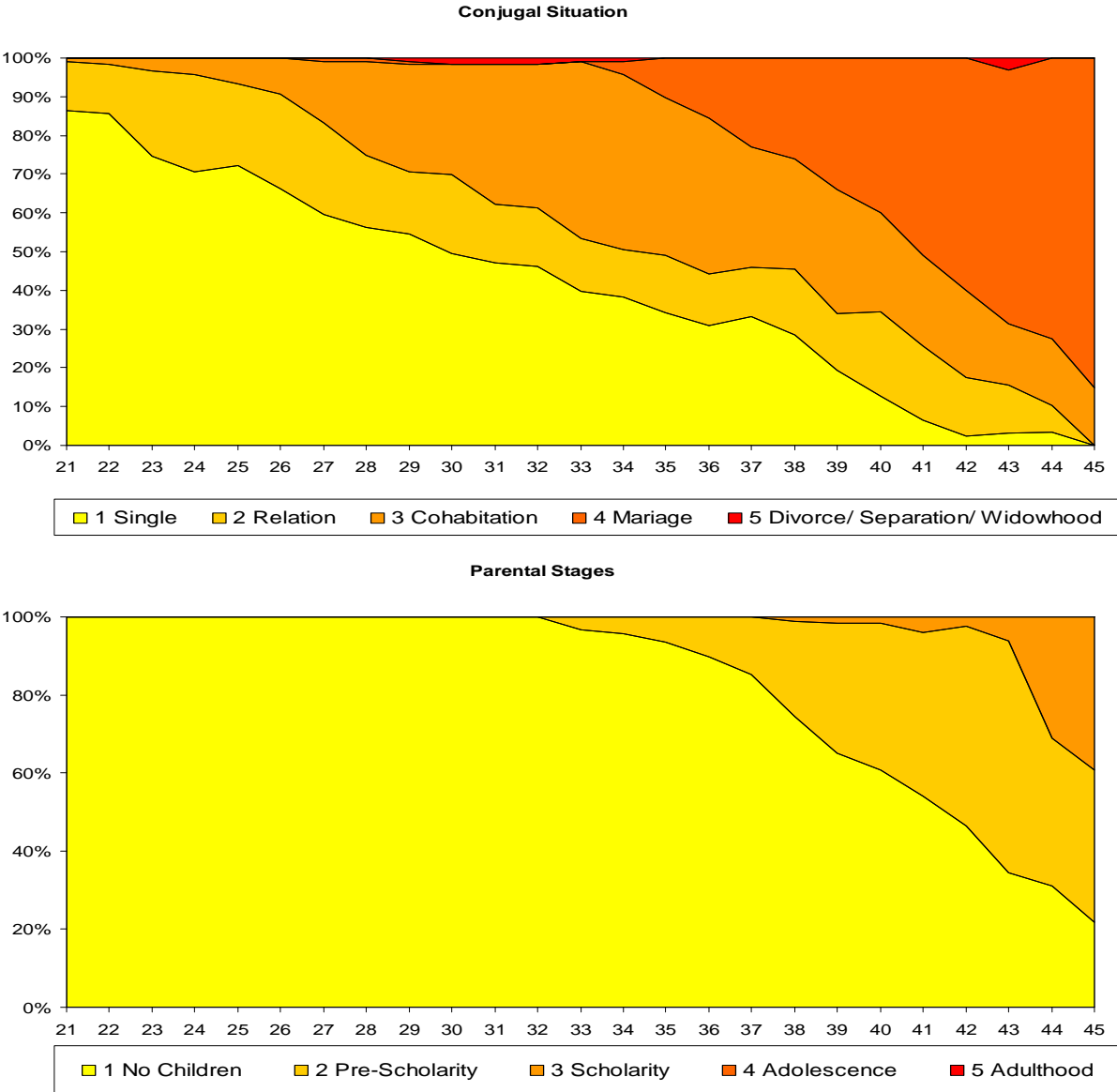
also in comparison to the other engineers and business economists. Only type three, characterised by a long period as single, pass on to parenthood also at a comparably late stage of life.

Figure 22: Early Marriage and Children (N=93; 24.2%)



The second type unites individuals who marry early and follow the wedding quickly (or even precede the wedding) with the birth of the first child. They become fathers or mothers at an average age of 27 years, and they are, as a consequence, also the only group whose children attain in substantial proportion adult status before the parents attain 45 years. The transition between single and being married is the shortest of all types: pre-marital relationships last an average of 2.17 years and cohabitation only 1.46 years. Therefore, this type can be considered as the most traditional, an appraisal that is confirmed by the gender distribution by types. Only 3.2% of women (compared to 10% in average) belong to this type.

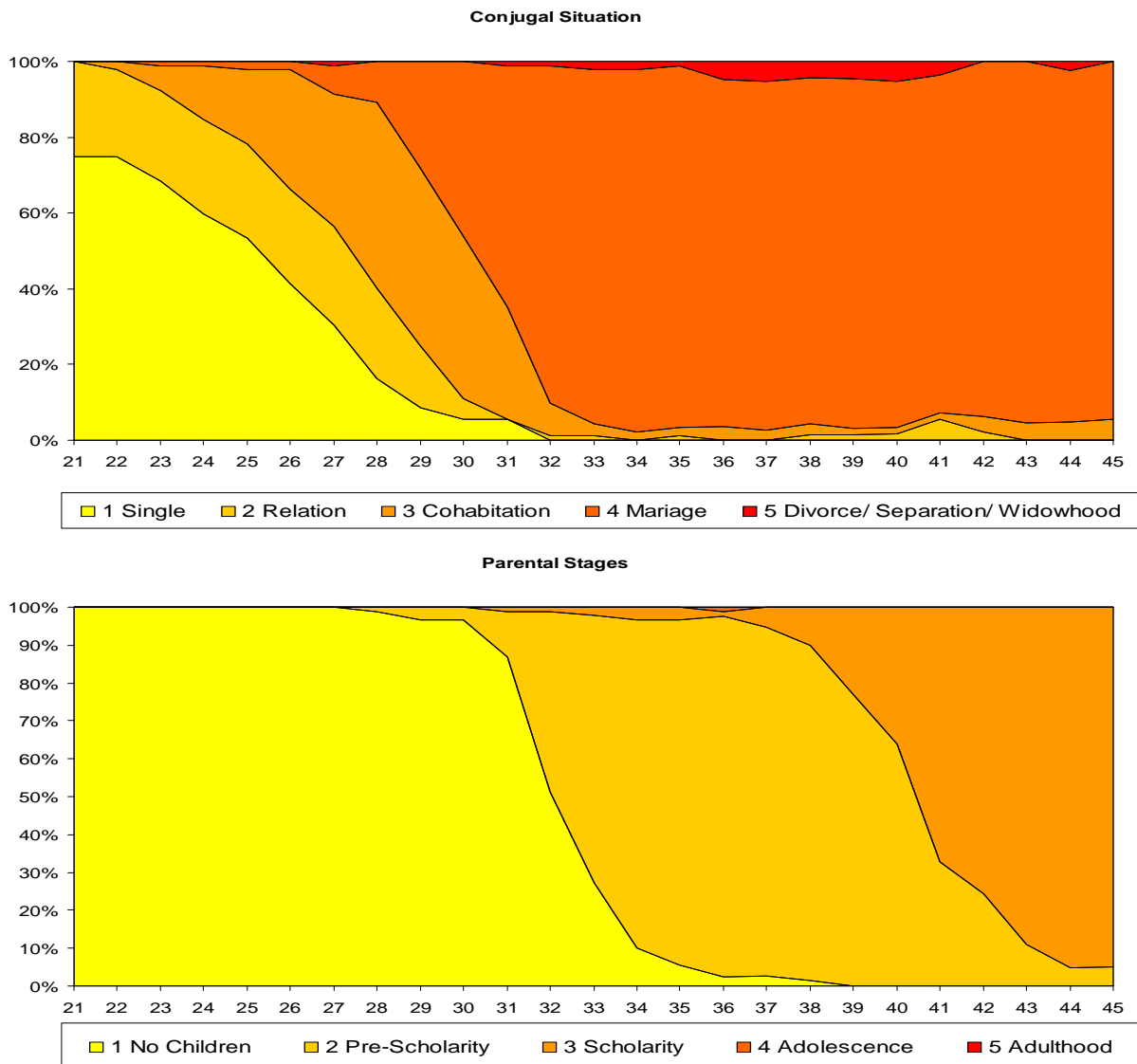
Figure 23: Single, Very Late Children (N=119; 30.9%)



The third and numerically largest group is, at the same time, the most off beat of all the clusters. This is because a large part of its members stays single until more than 30 years and also passes through a comparatively long period of transition in relations without cohabitation (3.31 years in average) and in cohabitation (4.52 years in average). If they have children, it is only at an average age of 37 years. Therefore, I call them a cluster of delayed conjugal life and delayed parenthood. Further analysis has to determine whether this delay is effectively associated with a particular type of career or is due to the asymmetric interaction between familial and occupational life. It seems, however, that this pattern is especially widespread among the women of our sample. This would mean that not only are traditional family trajectories not available to women wanting to make a career, but also that they find

themselves over proportionally in this pattern without children and with a prolonged period as single.

Figure 24: Early Marriage, Late Children (N=92; 23.9%)



The type called “early marriage, late children” is an intermediate type between the “marriage, very late children” and the “early marriage and children” types. This category’s members stay single for an average 4.39 years and pass through phases of 2.29 years of relations without cohabitation and 3.12 years of cohabitation before getting married. In fact, even if very close to the “marriage, very late children” on the conjugal dimensions, the members differ because they have their first child far earlier, at about 31 years of age, average.

All in all, the transformation of the family organisation is obviously a slower, more continual process than economic crises, which can lead to an instant restructuring of the employment system and organisations. The exemption of social climbers from the modernisation of the

family organisation, already ascertained in the 1960s, seems to continue: the female spouses of engineers and business economists work not less than the average women, but they are, in larger proportions, working part-time. In addition, careers seem to lead to a postponing of family starting, having children later, and, in some cases, to a higher separation rate. The large differences between engineers and business economists indicate that these are not directly linked to the occupational engagement of the man. The reasons why the family situations for the two structurally comparable groups are so different are not clear yet. The following chapters have to reveal whether engineers and economists also react to the trade-off between family and career by a reduction of career striving and a turn in the direction of a more consequent family engagement.

5.6 Conclusion

The information on the structural changes of the economic field and the family model are incomplete in many ways. Nevertheless, three central conclusions will instruct my further analysis. First, for social climbers and achievement careers, the crisis of the 1990s had a much more profound impact than did the depression in the mid-1970s. This temporarily narrowly circumscribed period of crisis allows me to draw a precise picture of the involvement of different cohorts. It is in the first place the age and the career stage in the beginning of the 1990s that will play a role for the involvement in and the interpretation of the crisis.

Second, it seems that not a creeping erosion of large-scale bureaucratic firms but instead a radical transformation of the personnel policies, due to the financialisation of the Swiss economic system, affected the engineers and business economists most thoroughly. These changes include relatively short-term adaptations to the dynamics of the stock market. They will perceive changes as abrupt and brutal. Not only structurally, but also subjectively, are such changes experienced as crisis, which may change radically biographical plans and projects.

Third, the examination of the family situation shows that it is difficult to say whether HOS engineers and business economists are more or less concerned by the erosion of the bourgeois family model than are the average Swiss couples. The data do not allow for drawing clear conclusions. On the other hand, it seems clear that engineers and economists are reacting to the trade-off between family and occupational engagement by different strategies—the

economists by postponing and a higher level of separation, and the engineers only in recent years by a postponing the family start.

6. Objective Careers of Engineers and Business Economists

6.1 Introduction

Hughes defines objective careers as a series of “status” and “offices”. “An office”, he explains, “is a standardised group of duties and privileges devolving upon a person in certain defined situations” (Hughes, 1937: 404).¹⁰⁶ The status, on the other hand, is the “part of one’s role which has a standard definition in the mores or in law” (Hughes, 1937: 405). While the concept of “office” or “role” is used to explain situations of interaction, “status” covers institutional and organisational aspects.

In one single organisation, the status of a person can be more or less trouble-freely circumscribed by the hierarchical position. However, the comparison of individual status across organisations, particularly within large economical fields, renders such a one-dimensional operationalisation problematic. According to Baron and Bielby (1980) or Boltanski (1982), this heterogeneousness makes it difficult to construct a larger relational picture of social statuses and positions. “Each indicator being ambiguous, only the cumulating of a multitude of fragmentary information allows organising the space of relations”, notes Boltanski (1982: 377).¹⁰⁷ In this sense, career in a larger and more heterogeneous social space corresponds to a sequence of combinations of characteristics. In order to approach career as such a combination of positions and characteristics, I refer to Multi-Channel Sequence Analysis. My application of this method is based on the dimensions of economic sector, functional position, hierarchical position, and size of enterprise. Compared to one-dimensional career research, the inclusion of these four dimensions constitutes clear progress.

The second part of Hughes's definition deals with the “ordered” character of objective careers. Order can first be used in the sense of “sequential order”. Achievement careers distinguish themselves from other types of occupational trajectories by their loyalty, their orderliness, and their rhythm (see chapter 2). Therefore, I measure these three aspects and examine their variations according to career types and cohorts. Second, order can allude to the typicality of

¹⁰⁶ Apparently, „office“ is just a synonym for „role“ which in the meantime has become obsolete.

¹⁰⁷ Translated by F.B.

phenomena. This means that careers are not completely chaotic and accidental but instead follow certain culturally known models interpretable by sociologists and social actors in general. The search for such a small number of typical career models allows the social scientist to reduce the complexity of the data and ultimately to interpret and explain the phenomenon. I therefore try to reduce the careers of engineers and business economists to an interpretable number of types and, in subsequent steps, to relate these types to the career characteristics (orderliness, loyalty, and temporal rhythm), but also to cohorts and to family trajectories.

I will first briefly demonstrate how I operationalised the concepts of loyalty, orderliness, and temporal rhythm. Then I will construct the types of careers and the cohorts of career candidates and relate them to loyalty, orderliness, and rhythm. Following this, I cast a glance at the correlation between family trajectories and occupational trajectories and will finally sum up and interpret the main results.

6.2 General Characteristics of Achievement Careers¹⁰⁸

In the following lines, orderliness, loyalty, and temporal rhythm are analysed on a general level, without differentiating between types or cohorts. For the analyses related to types and cohorts, please refer to chapters 6.5 and 6.6.

Orderliness

To examine the orderliness of careers, I refer to the operationalisation of Wilensky (1961). He distinguished between horizontal and hierarchical progression and crossed this dimension with either orderly or disorderly moves. As I am particularly interested in the hierarchical orderliness of trajectories, I refined the coding of the occupational position and received a typology that describes the orderly vertical progression against three different kinds of either disorderly upward, downward, or horizontal mobility. This results in the following scheme: orderly upwards shifts (to the next higher level), skipping upwards shifts (not to the next, but

¹⁰⁸ The indicators of orderliness, loyalty and temporal rhythm have been calculated thanks to the programming of Jean-Claude Ziswiler. I thank him for his commitment and investment, not only including the writing of the program, but also long hours of theoretical discussing.

to one higher level), downwards shifts, and changes from salaried employee to self-employed or the reverse. Table 2 illustrates the frequencies of changes on those four categories:¹⁰⁹

Table 8: Frequency of Types of Hierarchical Changes

	N	%
Orderly upwards	433	64.8
Skipping upwards	85	12.7
Downwards	94	14.1
From and to self-employment	56	8.4
Total	668	100

Almost two-thirds of the hierarchical job shifts are of orderly nature (i.e., they consist of hierarchical upwards steps from one level to the next higher level). Only about 15% of the changes are skipping-upwards steps or downwards slides, and less than 10% are shifts between salaried and self-employed. To synthesise the indicator and to make it applicable to the individual level, I created in a second step a ratio indicating the relationship between orderly and non-orderly shifts. To prevent biases due to differential lengths of careers, I weighted both sides of the ratio by the number of years of employment subsequent to graduation. This ratio yields a proportion of 83% of orderly shifts. Within these upwards moves, an overwhelming majority are orderly shifts, and barely more than 16% are skipping upwards shifts.

Loyalty

Changes between different jobs can either be conceptualised by the average length of jobs or by the number of changes throughout the career (Caroll & Mayer, 1986; see also Gitelman, 1966). The two measures are equivalent; a preference for one of them depends in most cases on the questions raised. While some are particularly interested in the hierarchical aspects, others place the emphasis on horizontal shifts, as for example, between different segments of the labour market.

I opted for an analysis based on the number of shifts between firms, mainly because this indicator is more easily comparable with other (non-duration-based) indicators than the average length. I am relying on the introductory question to every calendared module asking the respondents whether they changed their firm or not (see appendix 1). From the moment of

¹⁰⁹ Not individuals, as several changes per individual are possible.

graduation on, these responses were counted and coded in the following four categories: "no change", "one change", "two to three changes", and "four or more changes". An overall view of our sample yields the following results:

Table 9: Frequency of Firm Shifts

	N	%
No change	35	8.0
1 Change	72	16.4
2-3 Changes	213	48.4
4+ Changes	120	27.3
Total	440	100

Only 8% of the population never changed their employer, 16% changed one time, 49% two to three times, and an astonishingly 27% four or more times. This signifies that careers of engineers and business economists are rarely loyal over the whole occupational trajectories, and very certainly they are much less loyal than the organisation men of Whyte (1963 [1956]). Two to three firm shifts seem to be the norm; for a real understanding of loyalty, however, these analyses will have to be differentiated according to cohort and discipline. For subsequent analysis, I weighted the indicator by the number of years of employment to obtain comparable values.¹¹⁰ This weighting is indispensable, but it is also problematic, as presumably, the frequency of shift is not linear over all stages of career. In other words, the likelihood of changing the jobs hinges on the position in the life course and presumably declines particularly sharply after about 45 years.

Temporal Rhythm and Success

“Success” and “temporal rhythm” are particularly tricky concepts to measure, not the least because it they are potentially more relatively and contextually defined concepts than loyalty or orderliness. The meaning of "success" depends on envioning culture but also on the structure of the labour market or the specific profile of organisations. I measured it by the percentage of individuals attaining lower/technical management, middle management, and higher management. Secondly, I presume that the earlier these moves happen in the life course, the more they are considered socially successful. I therefore calculated the average age at which the transitions to lower/technical management, middle management, and upper

¹¹⁰ Simply by dividing the number of firm-changes by the years of occupational experience

management occurred. The earlier these shifts occurred on average for a certain group, the more successful they were supposed to be. For the whole sample, the analysis produced the following results:

Table 10: Frequency of Hierarchical Attainments and Average Age

	N	%	Ø Age
To lower/technical management	310	76.5	28.47
To middle management	233	57.5	32.06
To upper management	131	32.3	34.12

The declining percentage of engineers and business economists attaining higher levels means that career progression is characterised by hierarchical filters resulting from the pyramidal structure of authority in large firms. Whereas 77% reach lower or technical management, this percentage drops constantly as we pass to middle management (58%) and upper management (32%). These hierarchical attainments are also chronologically ordered; the higher the hierarchical level, the higher the average age of attainment. This means that generally, organisational rise is bound to certain temporal rhythms and norms of age or career length. By differentiating careers according to types and cohorts, I can determine which groups are attaining upper management in particularly higher proportion and whether those who do so also have a quicker career rhythm than less-successful groups.

6.3 Career Variety

Ever since Weber, typologies are one of the privileged tools of analysis and description in social sciences. They allow researchers to reduce and structure complex realities into a small number of groups or concepts that facilitate theory building (Kelle & Kluge, 1999). Optimal matching analysis is particularly well suited to reducing the overwhelming variety of occupational trajectories and thereby to understand their stages, chronology, and patterns of change (Abbott & Hrycak, 1990; Aisenbray, 2000). Unlike other methods, it allows us to grasp fully linked careers with its sequential development. In addition, the recently developed multi-channel alignment analysis (Gauthier et al., 2008a, 2008b) enables the researcher to capture configurations of positions and represents thus a substantial advancement compared to one-dimensional approaches of career (Baron & Bielby, 1980; Boltanski, 1982). The following four dimensions compose the backbone of my analysis: economic branch,

functional unit, hierarchical position, and seize of the enterprise. Each of the four dimensions has been coded in a way that allows me subsequently to grasp the significant patterns of their sequential order.

Dimensions of Analysis

The indications on the *economic branch* have been coded along the guidelines of the Swiss nomenclature NOGA 2002 (General Classification of Economic Activities).¹¹¹ To reduce the number of categories, I aggregated these categories as follows: “industry”, “building”, “personal and public services”, “banks and insurances”, “services to enterprises”, and “non-employment-periods” (e.g., mainly education period). In this way, I distinguish branches with high productivity (banking and services to enterprises) from those with lower productivity, such as industry, building, or personal services (Boltanski, 1982).

As to the *internal function*—the department or division in which the individuals work—I distinguish between “production,” “research, development, and planning,” “marketing and sales,” “IT,” “human resources,” “all-round administration,” and “finance and controlling.” These categories stem directly from the questionnaire and have been developed by an analysis of functional structures of enterprises in job advertisement journals. The category “all-round administration” is composed of a self-denomination as an “all-rounder” and of self-employed whose precise function is often vague because of the small size of their enterprise making clear-cut functional differentiations useless.

The *occupational position* is the only dimension suiting a clear-cut hierarchical pattern and therefore enjoys a central role in the reflection. I discriminate between “employees,” “technical and lower management,” “middle management,” “upper management,” and “self-employed.” This classification has been developed to grasp the hierarchisation of positions in a large number of different firms. Even if it is probably nearer to the reality of industrial firms than the one of service firms, the detailed description behind the main indication in the questionnaire helped the respondents to classify themselves. In addition, respondents had a

¹¹¹ “*The NOGA 2002 (General Classification of Economic Activities)*”, explains the federal Swiss office of statistics, “is an essential tool for structuring, analysing and presenting statistical data. With the NOGA, the statistical units 'enterprises' and 'establishments' (in the sense of local units) can be classified according to their economic activity and arranged in coherent groups. The NOGA can be used for various purposes to depict the real situation as accurately as possible in an exhaustive and sufficiently detailed manner”. See: http://www.bfs.admin.ch/bfs/portal/en/index/infothek/nomenklaturen/blank/blank/noga0/vue_d_ensemble.html

category of “others”, giving them the possibility to indicate positions that did not fit the proposed hierarchy.

Finally, in order to get a proxy of the *type of enterprises*, I coded them according to their number of employees¹¹². As well, I asked them to indicate only the number of employees in Switzerland and not worldwide in the case of international firms¹¹³. Here I also applied the classification that is used in the Swiss Enterprise Census. This resulted in the following four types of enterprises: “micro-enterprises” (0–10), “small enterprises” (0–50 employees), “middle enterprises” (50–250), and “large enterprises” (250+).

Attribution of Costs

The attribution of substitution and deletion cost is decisive for optimal matching analysis (Abbott & Hrycak, 1990; Aisenbrey, 2000; Gauthier et al., 2008a; see also sub-chapter 4.3). I set them on the basis of a theoretical model, translating the ease by which one sequence can be transformed into another. The relationship between substitution and deletion costs and the differentiation of substitution cost accordingly between the dimensions of our occupational trajectories are particularly determinant. The sample contains sequences of various lengths, as the individuals studied are at different stages of their careers. These differences have been reduced by excluding careers shorter than 10 years and by limiting the analysis to the first 25 years of the occupational trajectories (i.e., from age 20–45).¹¹⁴ Nevertheless, the different lengths still pose problems because the length-sensitive algorithm of optimal matching tends to class sequences according to their duration. By setting the insert and deletion costs at the minimum of the substitution cost, this difficulty can be minimised. Therefore, I set the insert-deletion costs at 0.5 in all four channels' cost-matrices. While this approach contrasts with most of the historical optimal matching studies having full length sequences at hand (Abbott & Hrycak, 1990; Stovel et al., 1996), virtually all contemporary studies using sequences of different lengths adopt this kind of strategy as well (Widmer et al., 2003).

The second aspect concerns the substitution costs between the positions. I have elaborated a theoretical solution for each channel. The economic branches have been divided in a

¹¹² The unity addressed by the question was explicitly the firm and not the plant.

¹¹³ As probably most of the international firms have more than 250 employees this does not alter the general results.

¹¹⁴ This choice is based on previous evaluations of a series of careers, showing that most of the major career events occur before age 45.

production-sector encompassing industry and a construction vs. service sector made up of personal services and services to enterprises and banking/insurances. I set substitution costs to four for changes between the sectors, whereas changes from one branch to another within the sectors are counted by two. This decision is based on the assumption that the divide between the service sector and the industrial sector is still larger than the divide between branches within these sectors. Or, in other words, it is socially more difficult or costly to change from service to industry (or inversely), than to change branches within one of the two sectors. In the same way, the cost model of the internal function is not hierarchical in nature but reflects rather horizontal differences. I put together the three service functions—sales/marketing, IT, and human resources—and the two technical functions—production and research and development—by attributing to them a change rate of two. All the other functions stand alone. The cost for a change between one of those sub-groups has been set at four. The centrality of the occupational position for the research questions allowed me to set the costs for changes higher in this dimension to give it a greater relative importance. Substitution costs were set at steps of four between the hierarchical occupational position levels (4, 8, and 12) and at six between self-employment and all the other positions. Finally, the small and micro enterprises were grouped together as opposed to the middle and large enterprises. The substitution costs mount at two within and at four between the two sub-groups.

Separate or Joint Examination of Engineers and Business Economists?

As I indicated in chapter 4, engineers and business economists holding a higher occupational school degree are considered to represent two sub-groups of people with the wish to make a career. While the first stand for a career occupation in the industrial sector, the second are considered to occupy a similar role in the service sector. Historically, the industrial sector in Switzerland has been in decline since the 1970s. The service sector's upswing, led by the pivotal banking and insurance branch, had already begun by the early twentieth century, but has even been reinforced by the deindustrialisation of the 1970s (Levy et al., 1997). The inclusion of two occupational groups is thought to include these historically rather different sectoral trajectories and to examine whether the decline or upswing of a sector is also linked to a decline or upswing of its respective career occupation. A recent study of Barrial's on the topic reveals that in the higher management of the Swiss top 100 firms, the law-based professions are increasingly weakly represented from 1980 on (Barrial, 2006), at least numerically. Engineers and business economists, by contrast, numerically dominate those positions: engineers (or technically formed managers) occupied 29% (1980), 30% (1990), and

32% (2000) of top management positions. Business economists even reinforce their presence in these positions: 25% (1980), 36% (1990), and 38% (2000) (Barrial, 2006: 67). These values, even if they comprehend all categories of education including university, suggest that engineers and business economists are still both occupations that lead rather equally to positions in higher management. However, it is not sure that on the level of higher occupational school, the two occupations have the same function for industry and services or that they can be analysed jointly without producing biases. Therefore, I proceed in two typological analyses: first, I analyse the two occupations separately and try to determine in which types they differentiate. In a second step, I put the members of the two occupations together and verify whether the types produced by optimal matching analyses on the whole sample are the same as for each occupation separately. In the following lines, I therefore present the rough characteristics of the types in both models, then decide which model I use for my further analyses and explain the reasons behind this choice.

In both cases, I applied a ward-clustering procedure to the distance matrix produced by the optimal matching alignment algorithm.¹¹⁵ The analyses of the engineers (without economists) differentiate, in a first step, between an industrial type of career that is coupled to functions in research/development, production, and IT and one whose career rhythm is rather slow (n=83; %=49.4). The second type seems to be a mixed cluster: it includes careers in the construction and the service sector and possibly a very large variety of functions (n=85; %=50.6). However, the second type is a little bit more successful than the first and is more exclusively limited to large-scale firms. When I go a step further and produce a three-cluster solution, the procedure splits the industrial career type into two: it distinguishes between one that is dominated by an industry-concerning branch, by an R/D concerning function, that is very slow and is limited to large firms (n=31; %=18.5). The second is also industrial but is more variable when it comes to functions, is more successful, and includes middle-size firms (n=52; %=31). They could be called “technical-industrial career” and “industrial-management career”. The third type is still a mixed type that includes a variety of branches and functions and astonishingly many self-employed (n=85; %=50.6).

¹¹⁵ This method proceeds to clustering by simultaneously maximising the inter-group differences and minimizing the intra-group differences. Compared to other types of clustering procedures, it generally produces a small number of clusters with a relatively even size. It therefore is not very sensitive to specific and small sub-groups, but captures well the main sub-groups.

If I observe these grounding two first steps of clustering separately for economists, the analysis differentiates between a first career dominated by banking, finance, and marketing that takes place almost exclusively in large firms (n=83; %=33.3). The second type is not dominated by one single economic branch. It is, however, composed of positions in finance and general management; it is very successful and covers a larger variety of firm sizes (n=166; %=66.7). A further split of the cluster leaves the “banking” type untouched and creates a career-cluster that is dominated by financial functions and is very successful. On the other dimensions, such as the economic branch or the size of the firm, there is no clear dominance (n=82; %=32.9). The third type produced by this three-cluster solution remains a mixed type with at the same a large variety of branches and functions (n=84; %=33.7). In other words, the basic career types among economists corresponding to what one could call a “banking career” on one hand (dominated by a branch) and a “finance career” on the other (dominated by a function). In addition, there seems to be a third type with no clearly distinguishable characteristics.

If I retrace the emergence of the different clusters for the joint sample of engineers and business economists, in the first analytical step with two clusters, none of the types found for separate sample emerges: both types seem to be the mixed type—one rather an engineer-based type and the other rather an economist-based type. This, however, can also be due to the fact that the ward procedure produces clusters with a relatively even size and therefore does not separate stable types from the beginning. This is confirmed by the next step. I can observe from the three-cluster solution that a cluster with very similar characteristics as the banking career appears and is dominated by banking, finance, and marketing and occurs in large firms (n=74; %=16.3). In the next step, along with the four-cluster solution, appears a cluster that is dominated by the building sector and research and development functions, especially in small firms. This group (n=30; %=6.8) does not appear as such in the separated sample. However, the clusters that emerge with the next two steps resemble strongly to the industrial-management career (n=75; %=17) and the technical-industrial career (n=38; %=8.6). While the first is dominated by a solid anchorage in industry with rather diverse functions, the second (featuring an equally strong link to industry) specialises in technical tasks such as R/ D and production. A sixth step then creates a type that is very close to the financial career of the separated economist’s sample; it is dominated by financial functions but is not clearly anchored in one economic branch (n=91; %=20.7). The remaining type seems, at first sight, to be a mixed one (n=97; %=22).

In comparison, it appears that the basic types of the disciplines analysed separately are reproduced in the joint sample. In the case of economists, these are the “finance-banking career” and the “finance-career”. And their equivalents in the case of the engineers are the “technical-industrial career” and the “industrial-management career”. All these types are emerging both in the separate and the joint sample. In addition, there are, in each separate sample, mixed or underdetermined types. It seems that in the joint analyses, one of these mixed types becomes clearer (the small firm type), whereas the other remains a kind of underdetermined type; however, further analyses are required. All in all, this situation brings me to prefer the joint sample and analyses of the engineers and business economists taken together. Three reasons have influenced this decision: first, such a joint analysis allows me to compare the careers of the two occupations more directly and to determine their differences and similarities. Second, this approach facilitates the study of the transition between technical and commercial unities. As potentially one or two mixed types emerge, non-disciplinary types can emerge and maybe it can be shown that certain engineers typically leave the technical field or, reversely, certain business economists change from the service to the technical sector. Third, when it comes to technical aspects of the analysis, the larger sample size that results from a joint examination of the two occupations facilitates multivariate analyses.

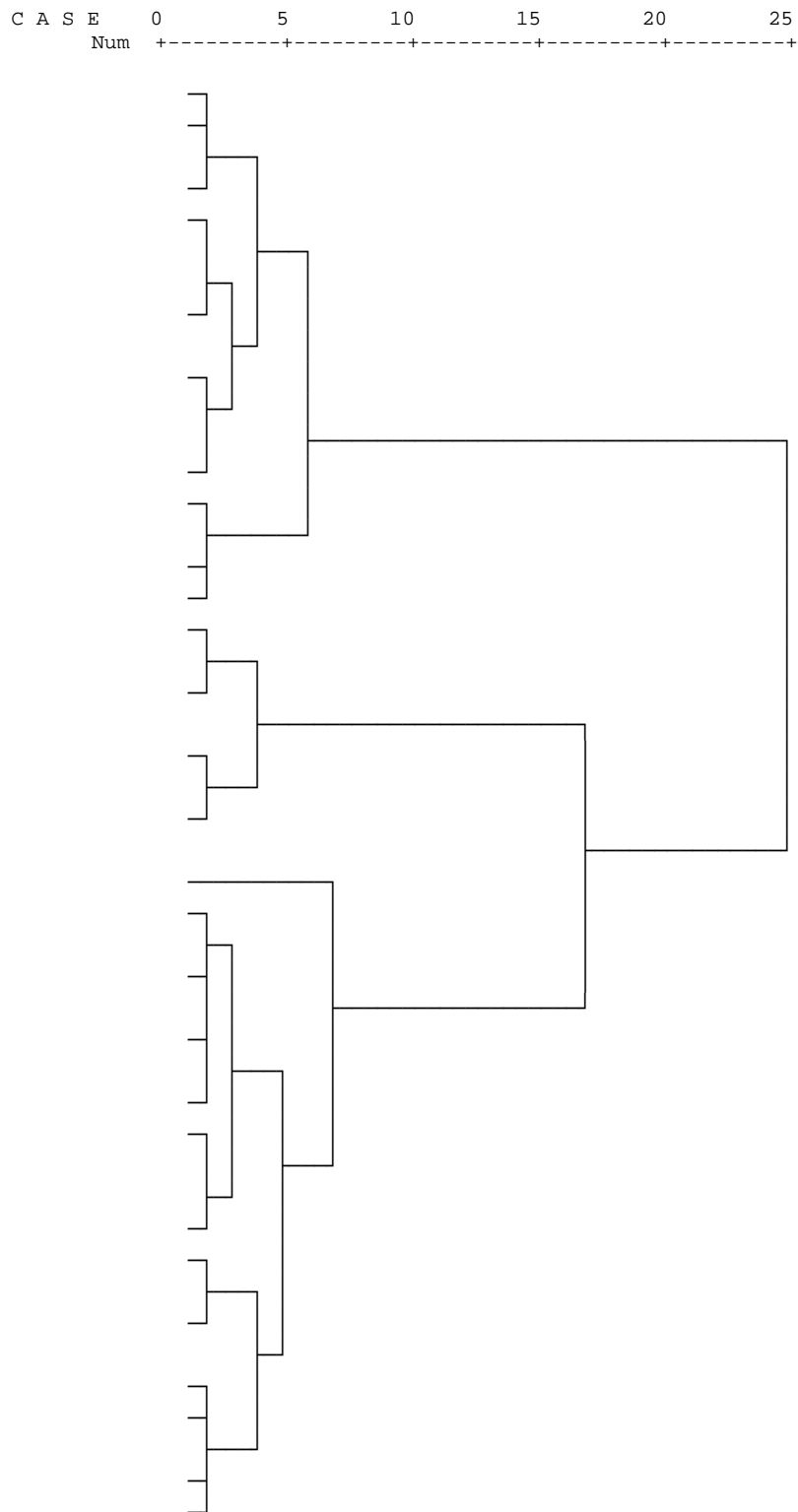
Types of Achievement Careers

For the examination of the joint group of engineers and economists, I used again a ward-clustering procedure. Among the solutions this analysis produces, I had to choose the one with an adequate number of clusters. Among the possible intervening criteria of decision, sociological readability says that clusters are analytically particularly useful if they are intuitively recognisable and respond to already-existing sociological or common sense concepts. Only a thorough theoretical understanding of the cluster and the relationship between clusters allows its use as an analytical instrument (Kelle & Kluge, 1999). Second, statistical rules can facilitate the decision, for example the "stopping rules" developed by Milligan and Cooper (1985). The optimal number of clusters corresponds to a local peak of the *pseudo-F* (high ratio between inter- and intracluster variance) associated with a low value of *pseudo t²* that increases at the next fusion and a marked drop of the *overall R-square* (Ratio between interclass variance and total variance). In the specific case, there was no clearly identifiable coincidence between a local Pseudo-F peak associated with a low pseudo-T2 value. The closest to this situation would have been a seven-cluster solution, the only solution

characterised by a low pseudo-T2-value that increases at the next fusion. A third solution is a dendrogram. The following dendrogram shows the regroupment of the clusters and the distances between.¹¹⁶

¹¹⁶ In SPSS the rescaled distance corresponds to the fusion coefficient transformed to a scale ranging from 0 to 25.

Figure 25: Dendrogram (with Rescaled Cluster Distance)



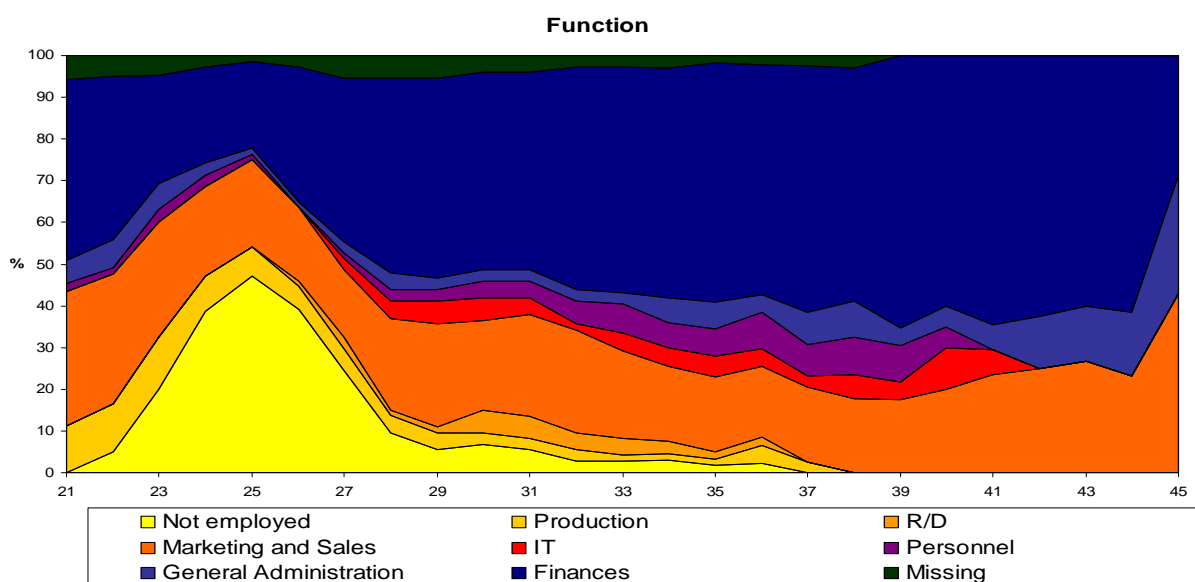
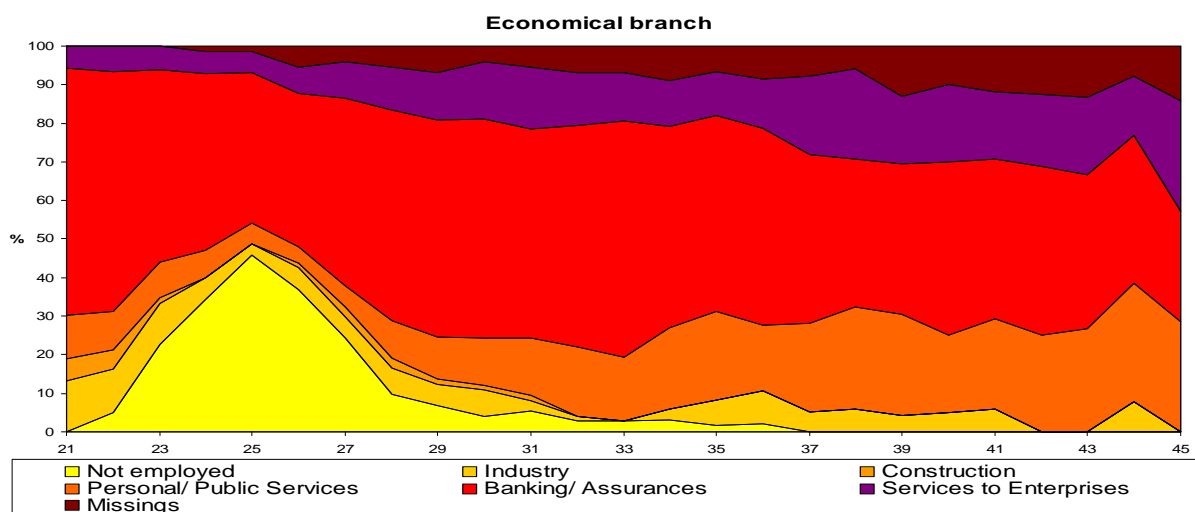
We see that four clusters distinguish themselves rather clearly, but that the further distinction into six, either, or even nine clusters is not very obvious. From the four-cluster solution, there are several distinctions at a rather close distance in the dendrogram. For reasons of parsimony, further use of the cluster variable and, above all, of sociological readability, a six-cluster

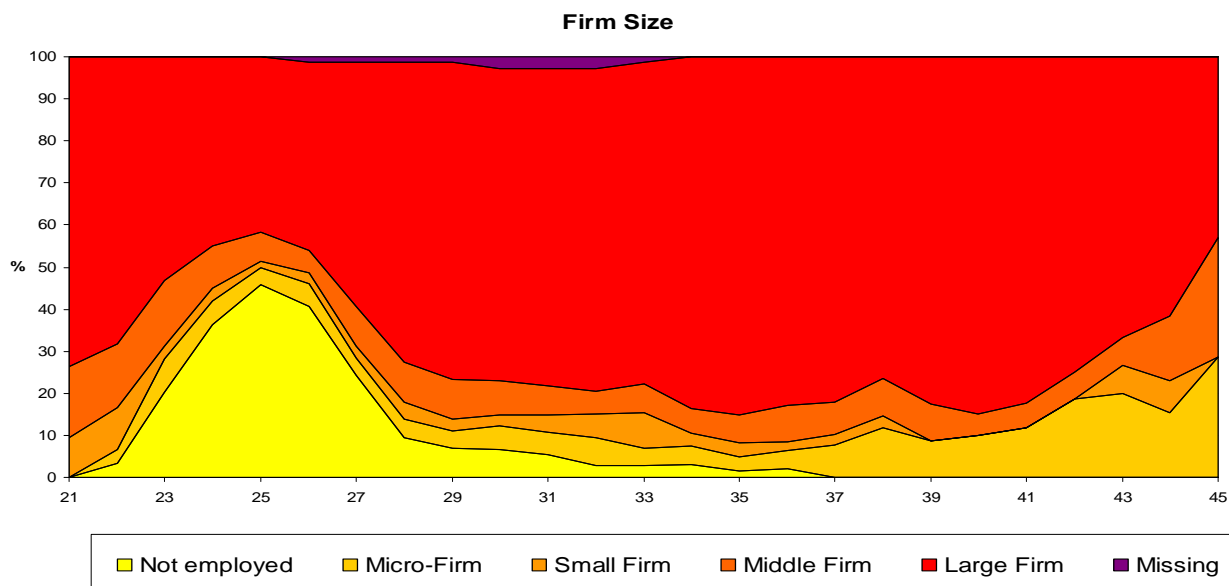
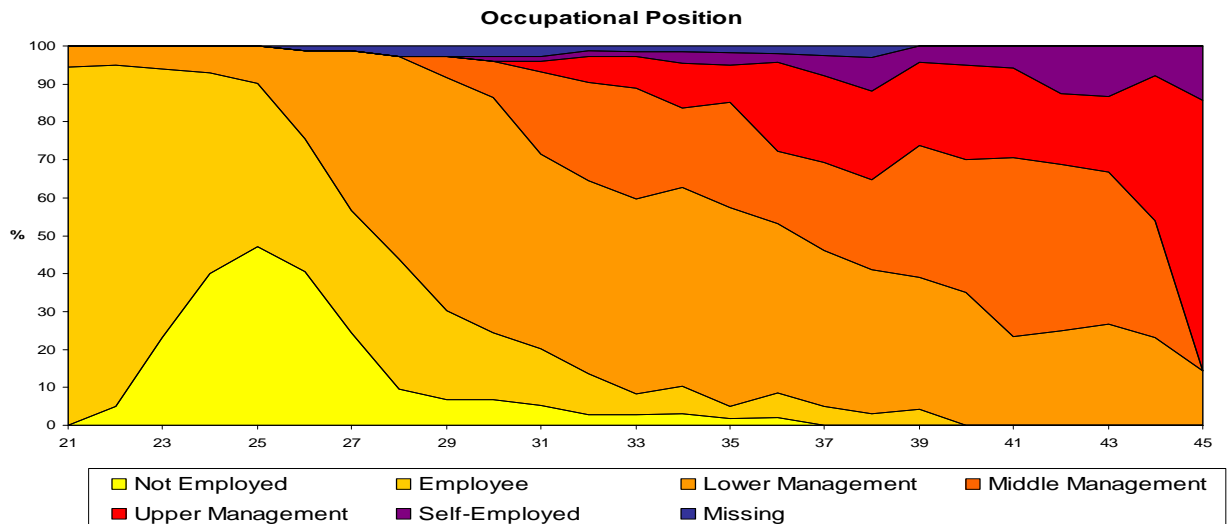
solution has been preferred. This solution produces clusters that make sense sociologically and separate (in contrast to the one- to five-solution clusters) small-scale firms as a specific cluster. On a statistical level, it is the last one that is not reduplicating an already-existing shape of trajectory and which does not create a cluster dominated by missing values.¹¹⁷

For the description of the six types of trajectories, I rely on an analysis of graphs of the so-called trajectory types. In these graphs, the y-axis represents the percentage of individuals finding themselves in a specific state, whereas the x-axis corresponds to the temporal axis. The graph represents the proportion of individuals that at a particular age occupy a particular state. As it is a four-channel optimal matching analysis, each type is described by four different graphs—economic branch, functional unity, hierarchical position, and firm size—which have to be “read jointly”. In the comments, I use data indicating for how long in average the members of a specific type stay in the different states. Occasionally, I will use supplementary “descriptors” of the types and the outcomes of a change-index table, showing the number of changes between economic branches, functional units, hierarchical positions, and firms of different size.

¹¹⁷ When integrating missing values into the analysis it is possible, that the clustering algorithm unites all the cases with a large number of missing values within one cluster. This has to be avoided, since the corresponding cluster is not interpretable.

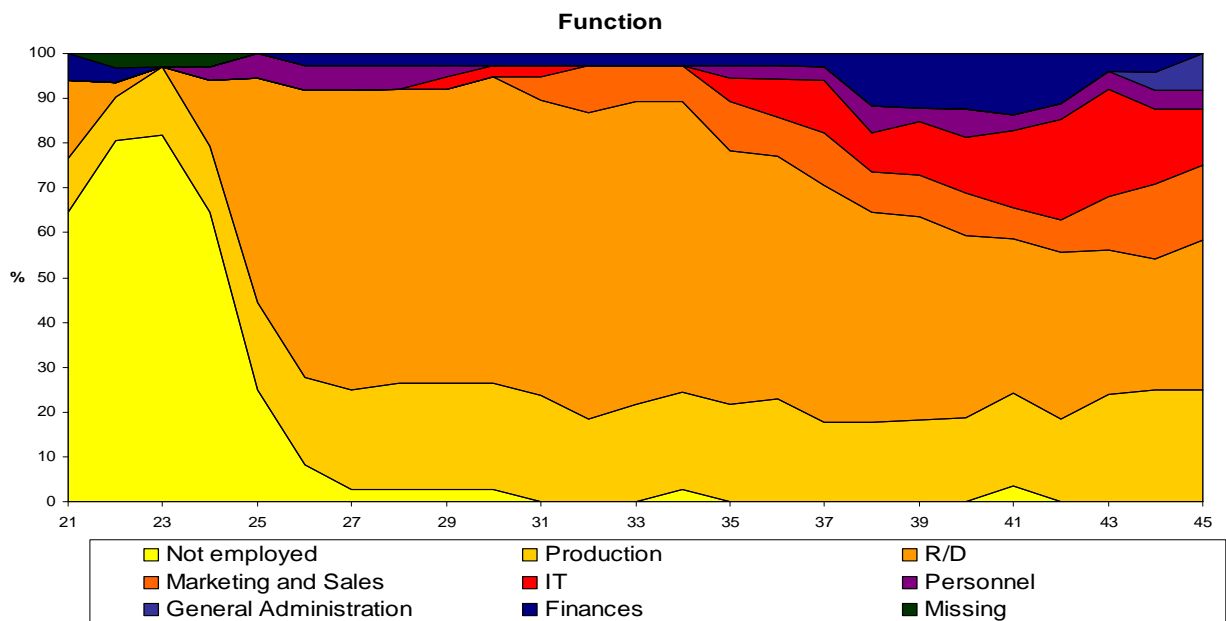
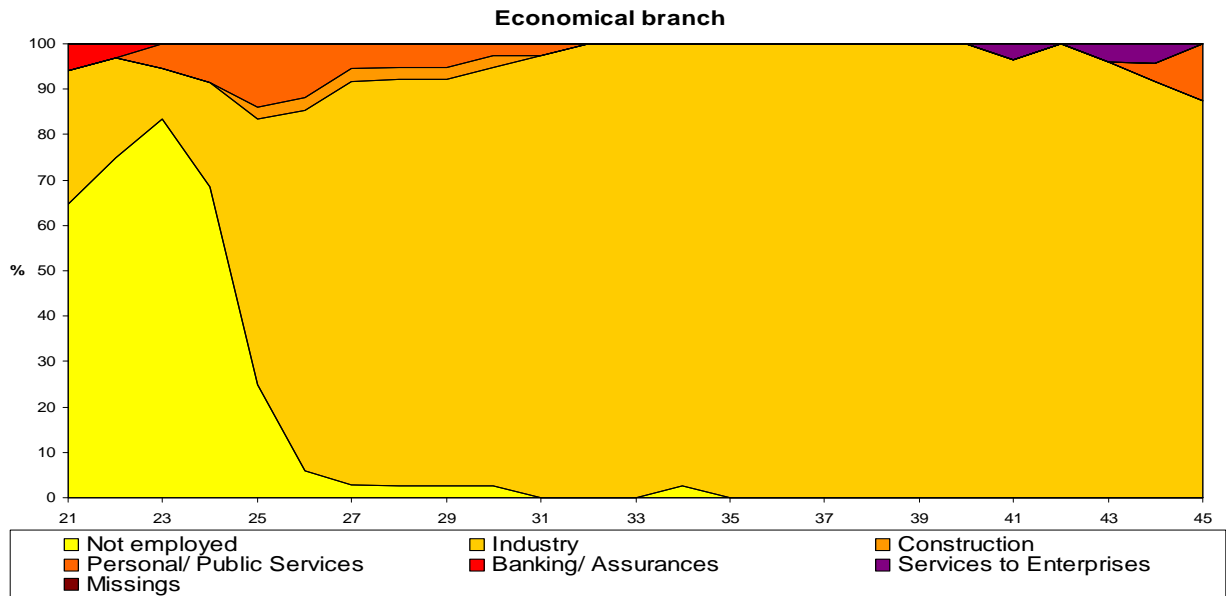
Figure 26: Financial-Banking Career (n= 74, 16.8%)

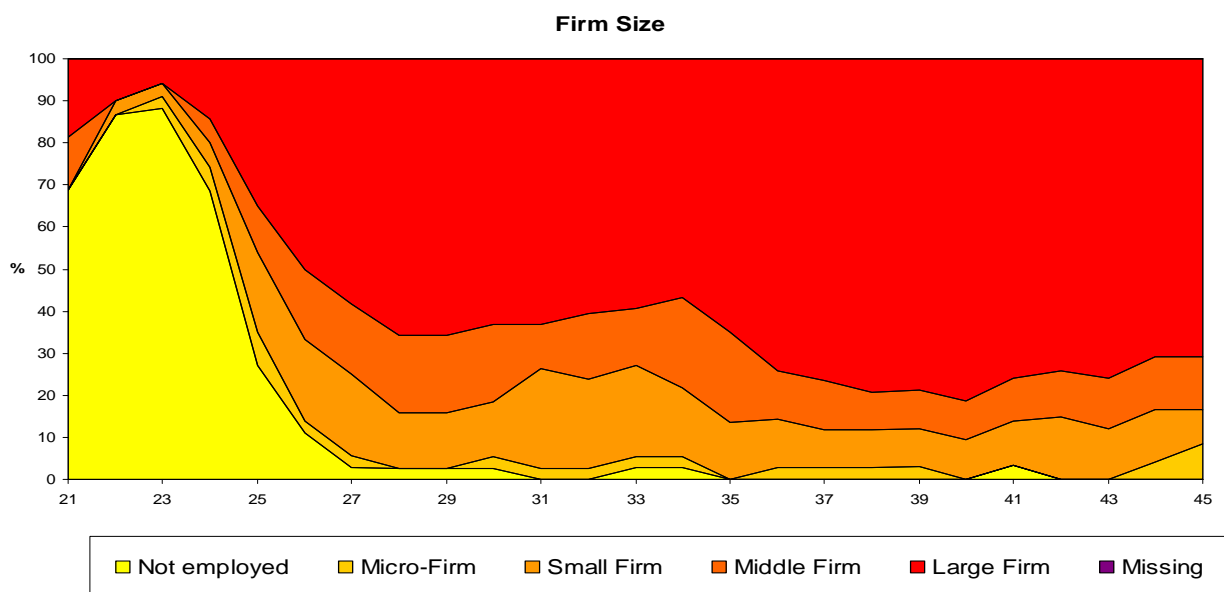
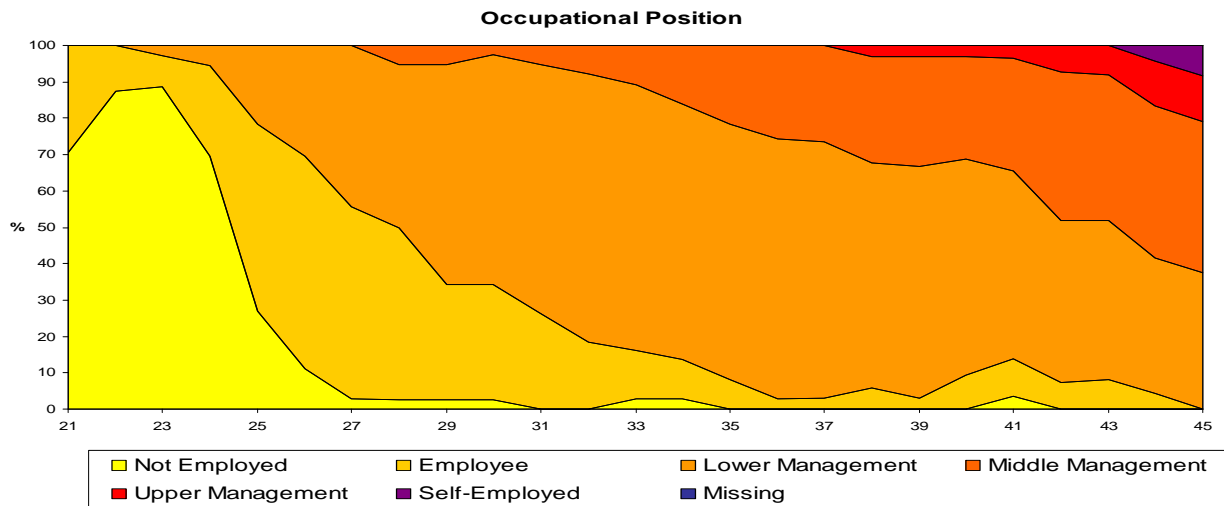




Financial-banking careers takes place in large banking and insurance companies and to a lesser extent in firms of related service sectors, such as personal services and services to enterprises. Of all career types, it is the most firmly rooted in the universe of large enterprises; changes to middle- or even small-size companies are virtually excluded. The group, largely dominated by business economists (95%), works mainly in accounting and controlling, a minority in marketing. Compared to other types, changes of functional units are rare, the majority remaining true to financial tasks throughout their career. A glance at the hierarchical dimension reveals that the members of this cluster remain relatively long in positions of lower management (6.2 years), but compensate for this by a relatively quick bridging of middle management positions.

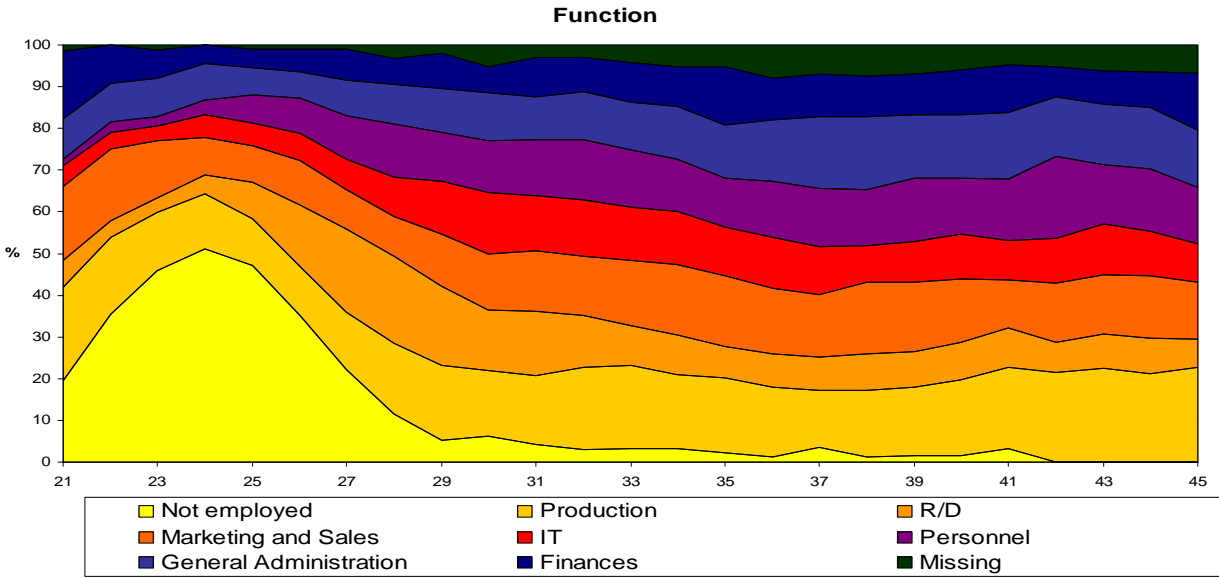
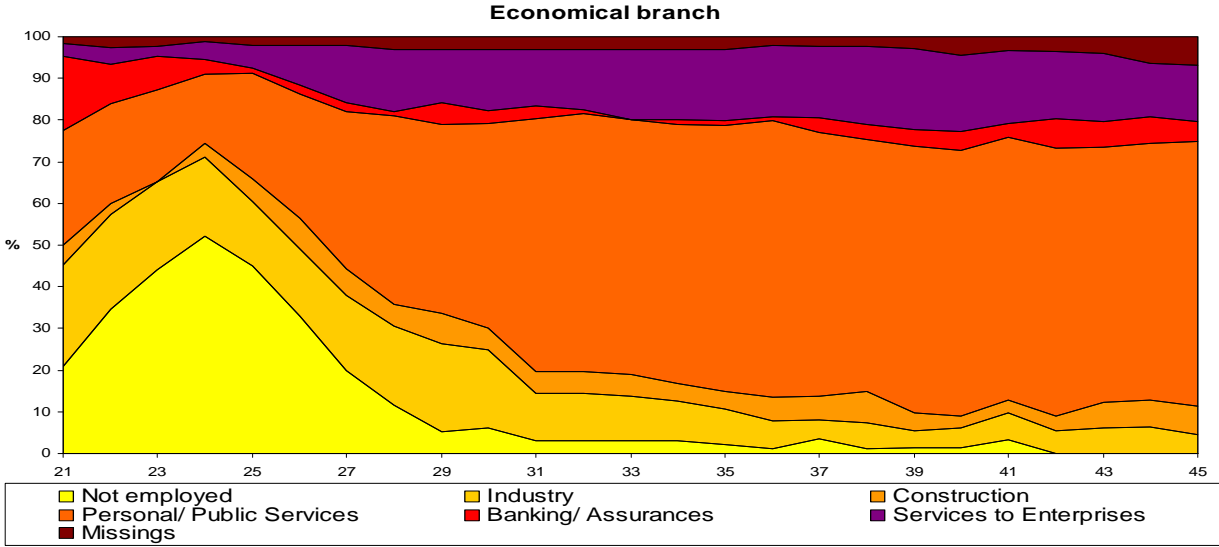
Figure 27: Technical-Industrial Career (n=38, 8.6%)

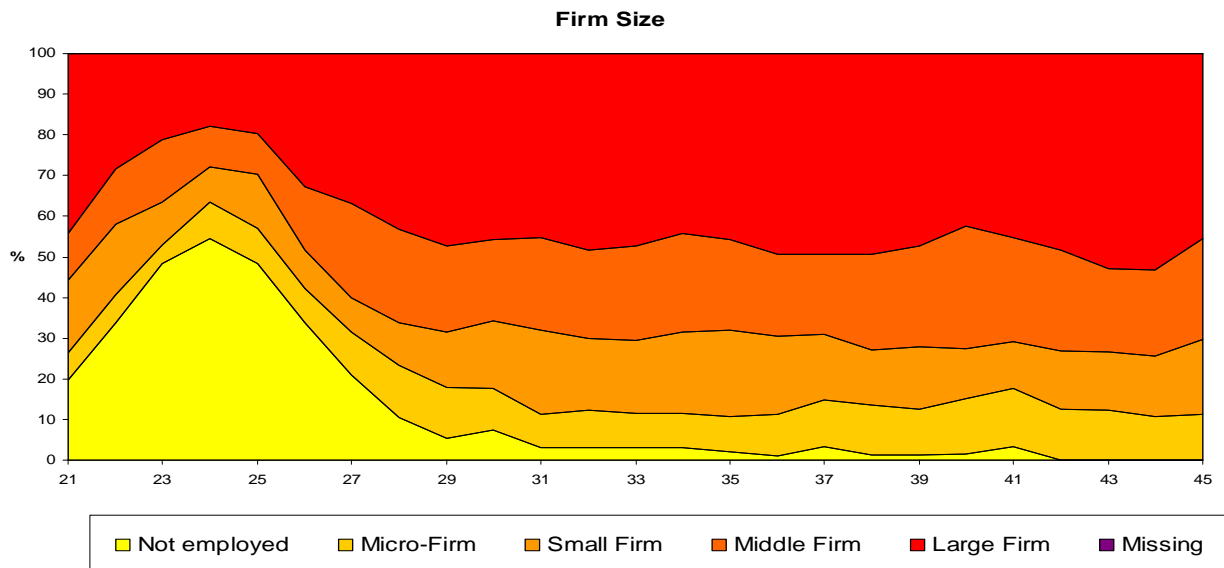
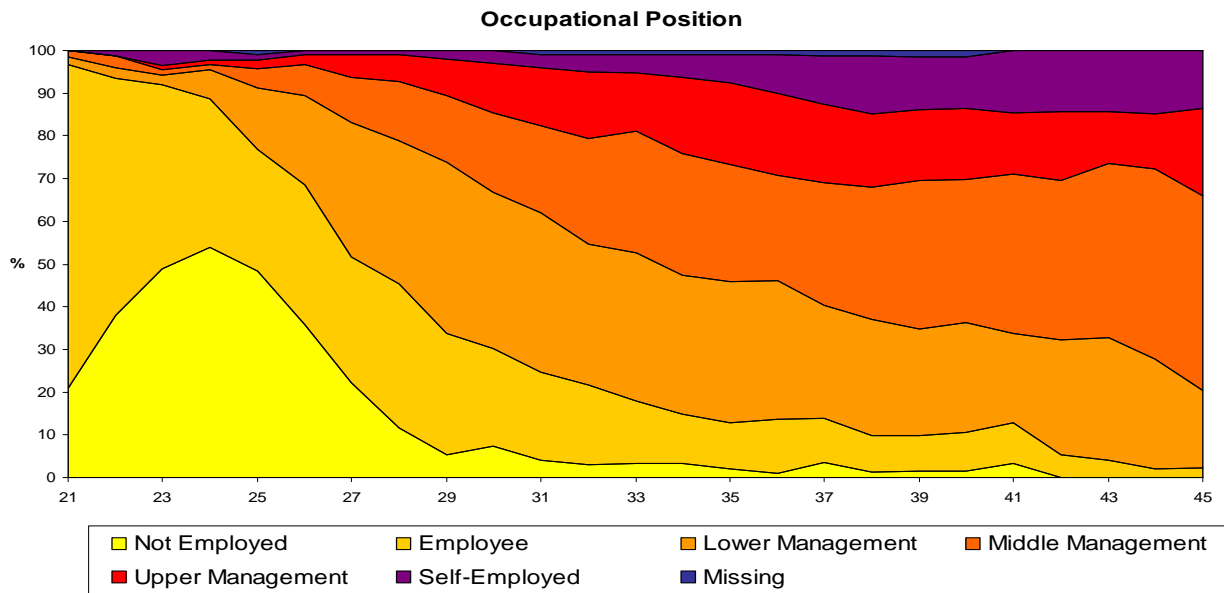




The members of a *technical-industrial career* remain exclusively in the industrial sector, working either in production or in the research departments of large-scale firms. It is thus no surprise that it involves almost exclusively engineers (95%). If a glance at the functional sub-trajectories and the related change coefficient points to a quite high level of fluctuation, a closer examination shows that these changes occur chiefly between research and production. The technical-industrial career is by far the slowest trajectory type: after about four years as employees, these engineers move to positions of technical or lower management, where on average, they remain more than ten years. Accordingly, only a few of them are promoted to middle management or upper management.

Figure 28: Staff Career in the Service Sector (n=97, 22%)



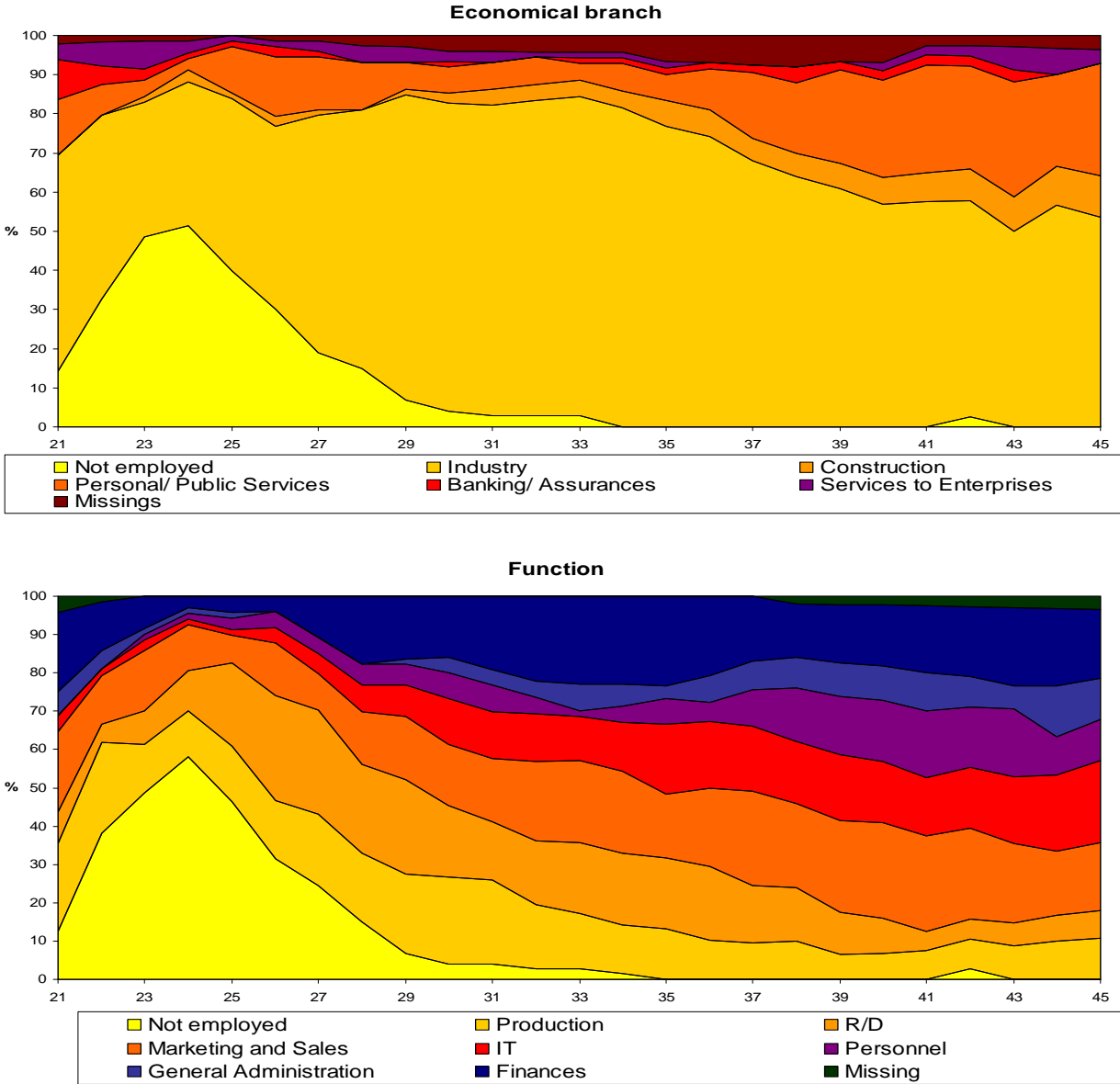


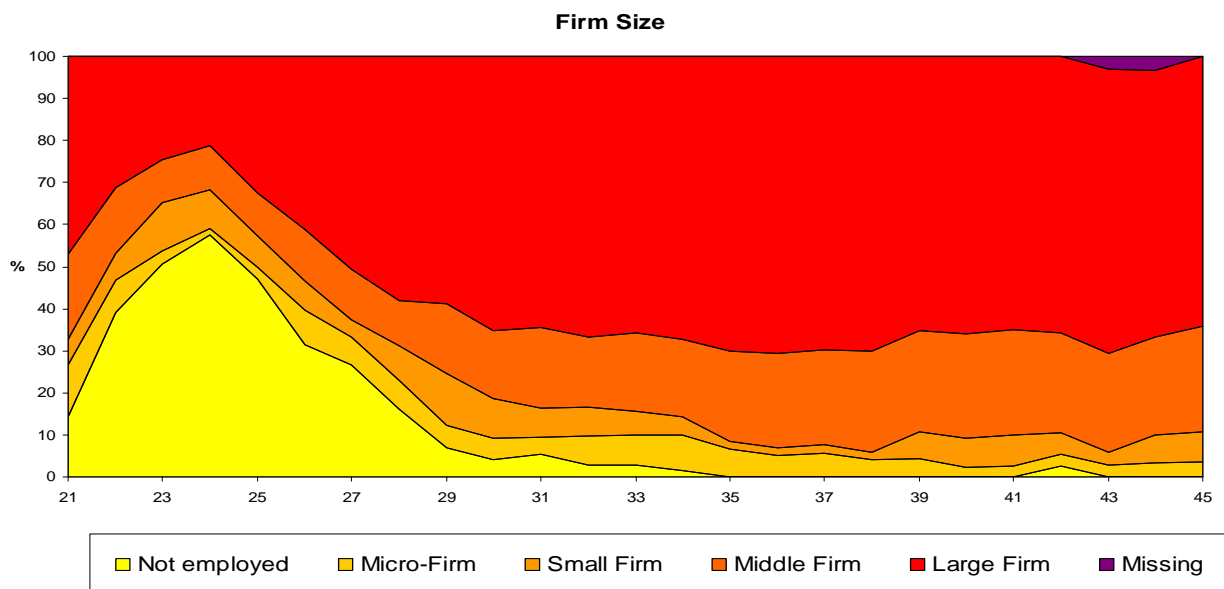
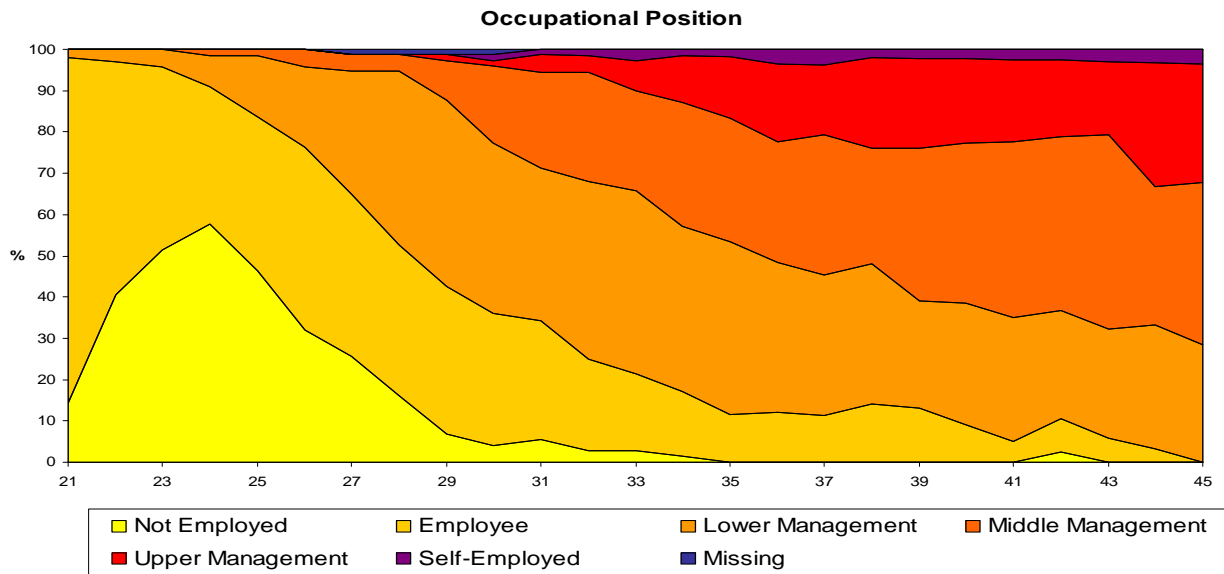
A *staff career in the service sector* is the most heterogeneous trajectory type, which does not correspond to an intuitively recognisable pattern.¹¹⁸ Even if business economists prevail numerically (57%), it is also open to engineers (43%). On all dimensions, relatively high coefficients of change can be observed, which means that this group often changes between branches, functional units, and even types of enterprises. About half of the group evolves in middle or small enterprises. A majority works in the personal or public sector services,

¹¹⁸ According to the literature on organisation jobs in large-scale firms can be distinguished between „line“-functions and „staff“-functions (see already Weber 1972 [1921]). The positions occupied by the members of this type are effectively „staff-positions“ in this sense; they are not necessarily organised in a vertical order. This means that this type, similar to the „Career in Small and Middle Firms“ (I will present on the following pages), is not an „achievement career“ in the sense I defined it in the introduction (chapter 2). This shows, that people who have the wish to make an upwards career at one moment of their trajectory, might land in this kind of alternative trajectory. If this types corresponds only to a „secondary choice“ or an equivalent opportunity remains open.

shifting between personnel, sales, and IT—tasks we can resume as staff functions supporting the production units. On average, they work 4.5 years as employees, 5.2 years in lower management positions, 4.3 years in middle management, and more than 2 years in higher management.

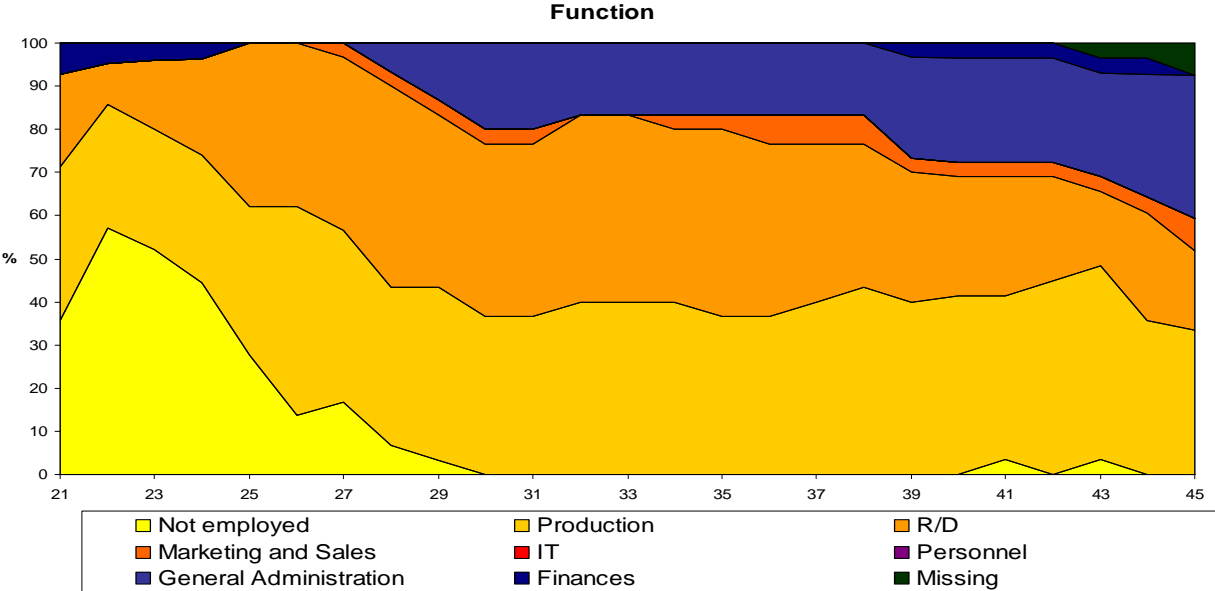
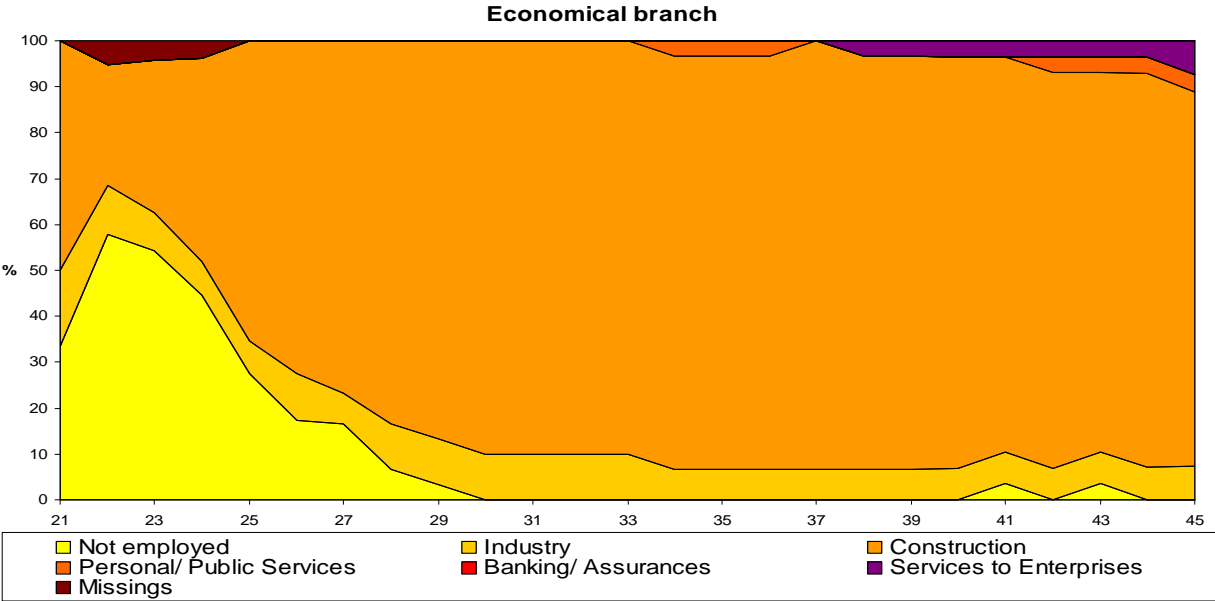
Figure 29: Industrial Management Career (n=75, 17.0%)

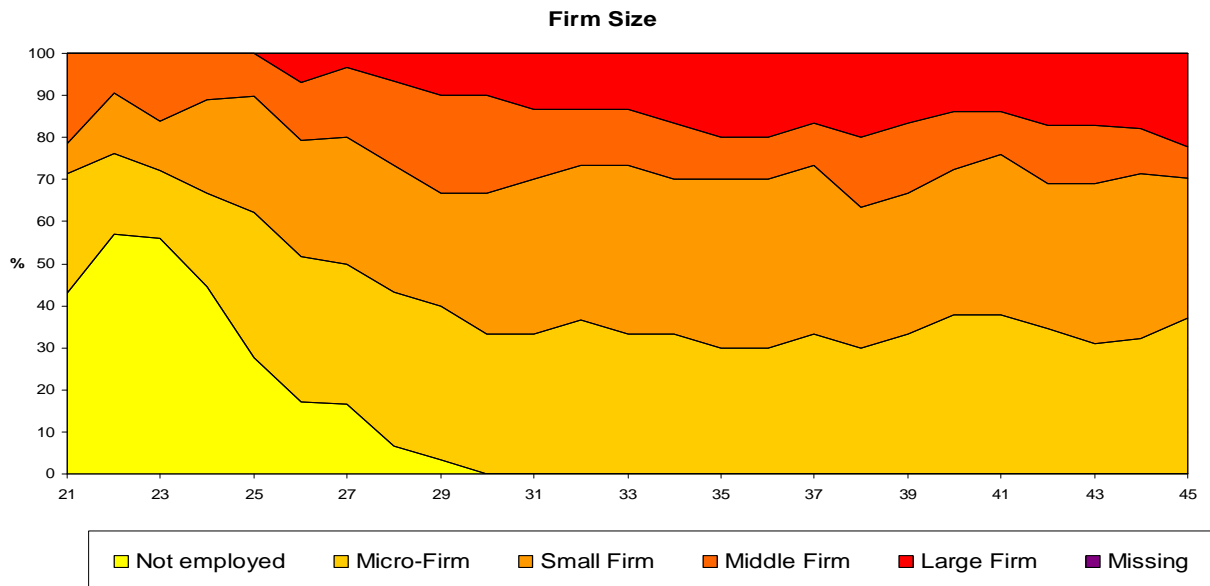
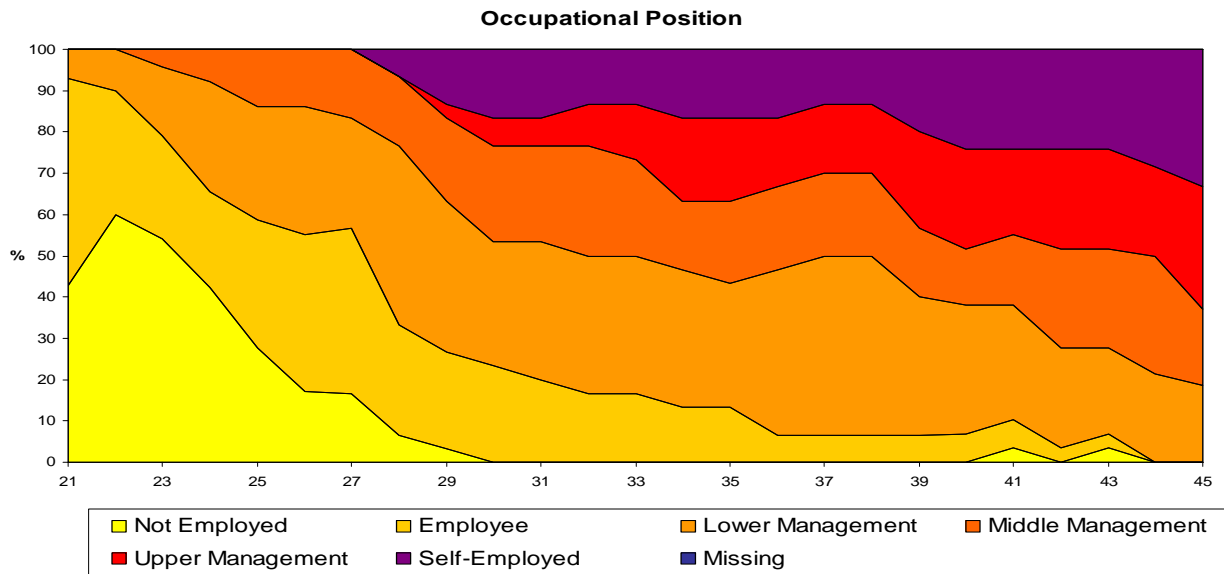




The *industrial management career* compasses on the one hand engineers (57%) who, subsequent to their beginning in the traditional functions of production or research in large industrial firms, leave those domains in order to move to marketing, IT, or finance within the industrial sector. A second sub-group is composed of business economists (43%) working in the service functions of large industry, respectively in the personal and public service sector. Moves to middle-scale (and sometimes even small-scale) firms in the course of the trajectory are possible. Compared to the technical-industrial career, they spend about the same period in employee status (5.3 years on average) but bridge much more quickly the lower management zone. On average, they remain 5.6 years within this level and then move to middle management positions.

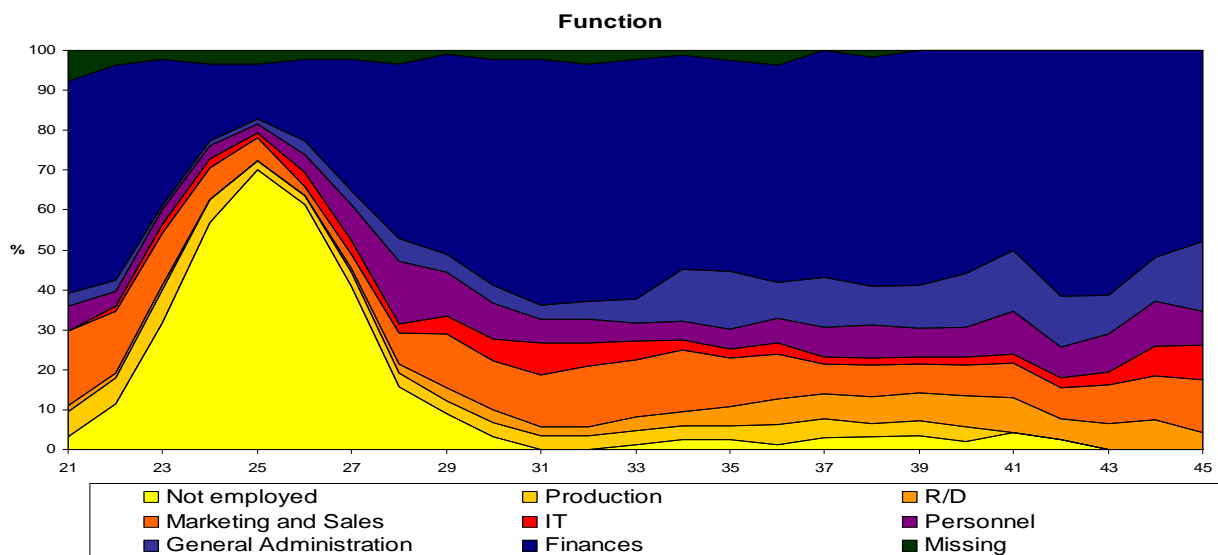
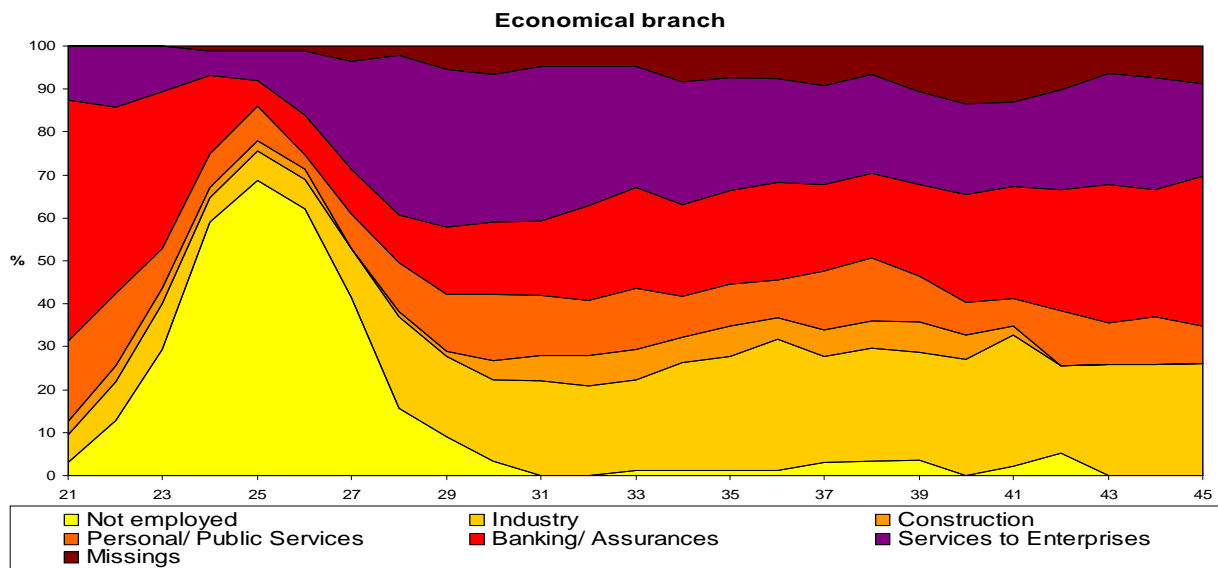
Figure 30: Careers in Small and Middle Firms (n=30, 6.8%)

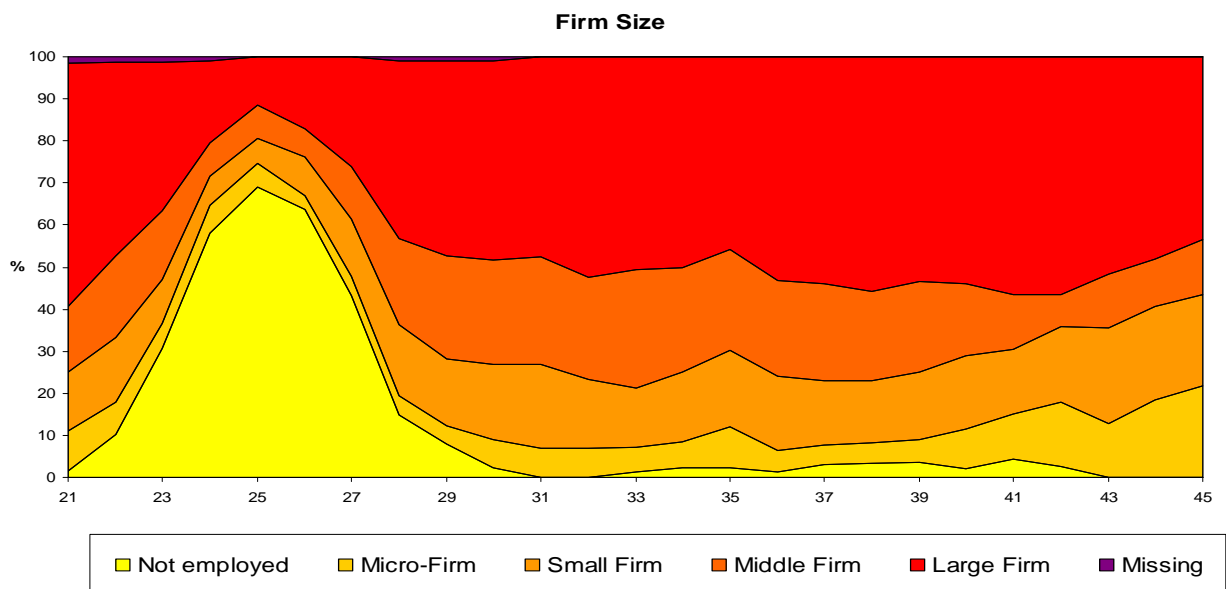
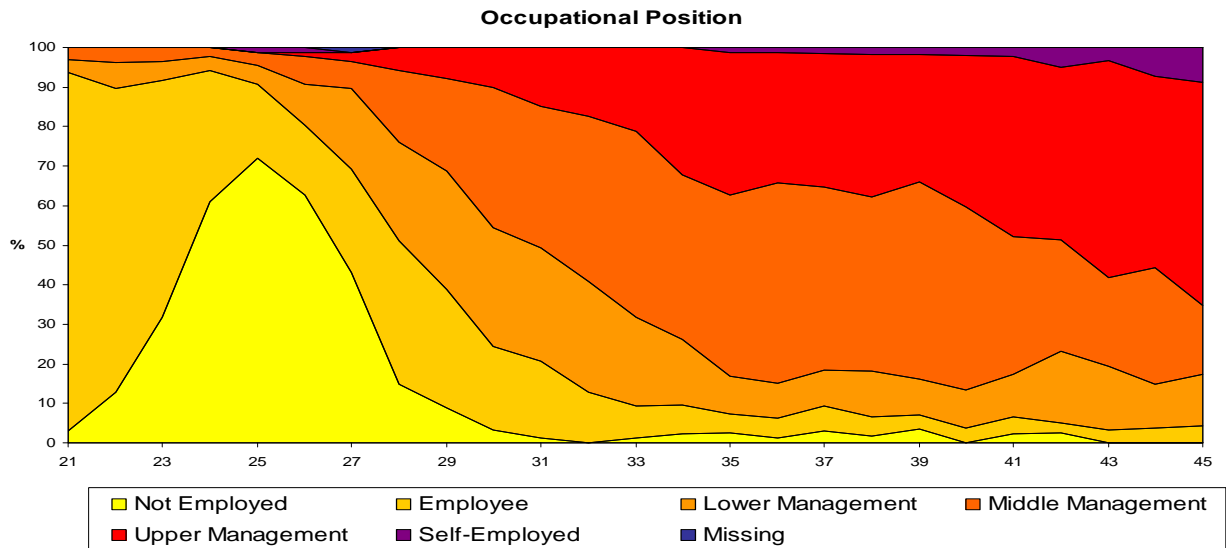




Careers in small- and middle-scale firms differ from all the others. Their universe is limited to the middle and small firms; only about 15% of those trajectories pass through large enterprises. Throughout their careers, the members of this cluster work almost exclusively in the construction branch, either in research and planning or in a production unit. We can thus speak of a sort of “construction career” of planners and self-employed entrepreneurs (93% engineers). As the position of middle and higher management assumes quite a different meaning in the context of small enterprises, a direct comparison with the other types in terms of hierarchical achievement hardly makes sense. We can observe, though, that a large proportion reaches a position as a general manager of those small firms or founds a firm themselves.

Figure 31: Financial Career (n= 91, 20.7%)





A *financial career* is strongly dominated by business economists (95%). In contrast to the financial-banking career, it is relatively independent of the economic branch, embracing at the same time careers in industry, banking, or services to enterprises. Instead, it is deeply rooted in finance, controlling, and accounting. A minority works also in marketing and sales for certain periods. This type of career is not bound to large enterprises; about 40% are employed in middle and small enterprises or switch between large and middle-scale companies during their careers. Members of this type remain on average 4.3 years in employee positions and pass very quickly through positions of technical and lower management (2.9 years).

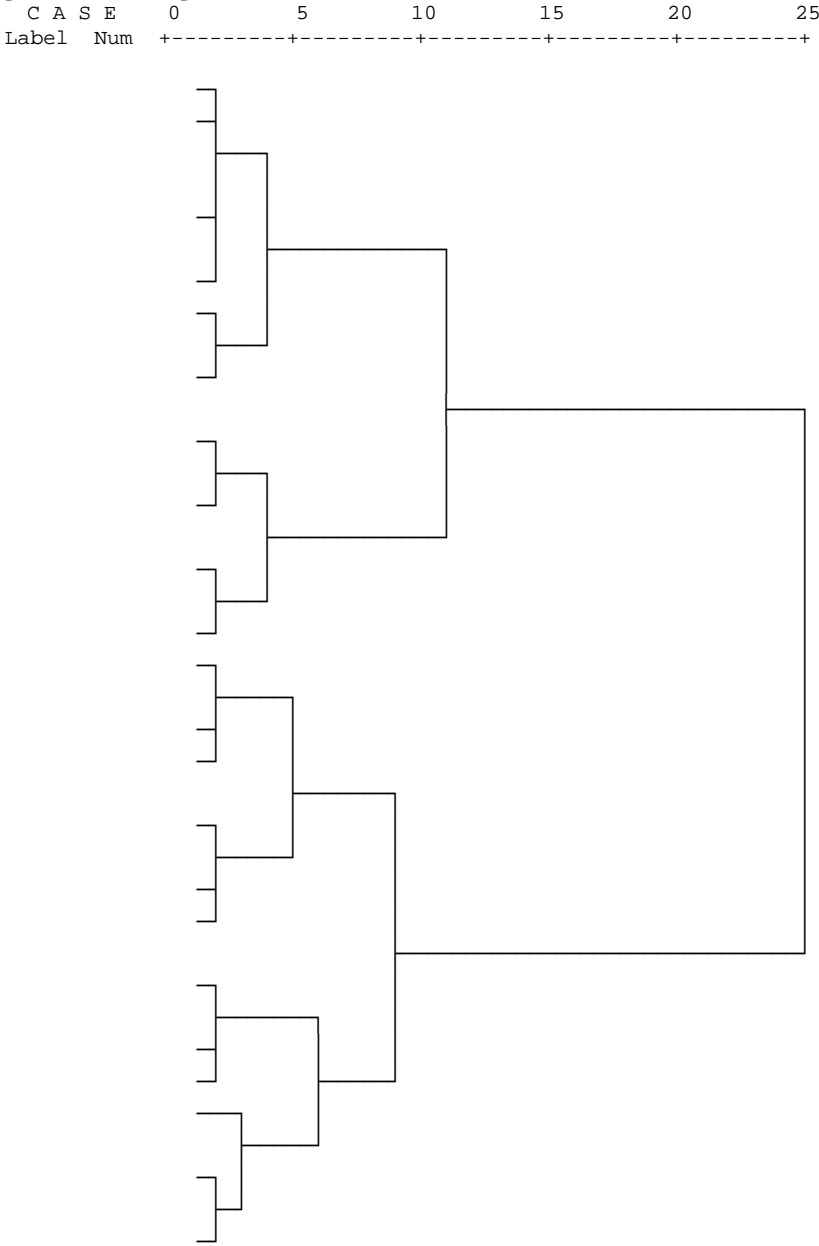
6.4 Digression: A Closer Look at Shortened Trajectories

The careers of engineers and business economists are measured by their retrospective reconstruction at one specific moment in time. According to the age of the respondents, not all of these trajectories have the same degree of completion: only about a third of the sample has attained the age of 45 years, which allows me to take their whole trajectory from 20 to 45 into account. Two remaining careers, with a length between 10 and 25 years, enter as uncompleted trajectories into the analysis. This comparison between completed and uncompleted trajectories is one of the major shortcomings of my approach (Riley, 1973). The lacking part of the uncompleted trajectories is censored. In a certain sense, I assumed that it would take a similar form as the late trajectories of previous cohorts. This is problematic in three ways: First, when I assume that this type of career is brisker in the beginning and then begins to calm down in terms of career moves, it is not excluded that only a particularly animated period of a younger cohort's career is covered by analysis and potentially biases the outcomes. Second, it is possible that the structures through which the younger cohorts have passed to date have led to latent changes in their careers, but which will manifest in the years to come. Third, it is possible that future events (economic booms, crises, and political changes) will transform the careers of the younger cohorts in a way that is not yet known. By comparing the characteristics of careers of different cohorts in this way, I therefore run the danger of a “generational fallacy” (Riley, 1973). This means that I am wholly attributing differences among the cohorts to the social structures they have passed through as a group, while in part these differences might be due to their age, or better their position in the life cycle at the moment of measurement (Attias-Donfut, 1991). In order to overcome these shortcomings, I conduct a complementary analysis in which I rely on shortened (i.e. completed) trajectories. So, the cohorts can be compared without mingling completed and trajectories.

The difficulty with an analysis of shortened trajectories is finding the right equilibrium between the largest possible sample and the longest possible trajectories to be taken into account. I adopted a solution of 290 individuals (which is 66% of the initial sample) and a length of 17 years (from 20 to 37). The measurement of some of the important moves – as moves to the upper management or moves to self-employment - is potentially biased by these modifications. A glance at the general distribution of orderliness, loyalty and temporal rhythm indicates that the values for the sample of shortened trajectories are more or less the same as the full length sample. The only changes concern the temporal rhythms where, above all the

moves to the upper management are reduced because of the cut at 37 years. The cost-attribution, for reasons of comparability, is based on the same theoretical model as the main-typology. However, as the sequences in this case are “completed” sequences, the status of the deletion-cost is raised to 3.5 in all four channels in order to give the length more weight in the course of classification. Secondly, I raised the value of education to 1 (instead of 0) to adapt to this new ratio between deletion and substitution costs. As to the number of clusters, I relied again on a combination of statistical and sociological criteria. The stopping rules, as well as the dendrogram (see below), suggest either a 4-cluster or a 9-cluster solution (even though the local peak of Pseudo F is not very pronounced).

Figure 32: Dendrogram (with Rescaled Distance)



I opted for the 4-solution cluster because it combines statistical support and sociological readability. As the number of different patterns increases biographically with age, it seems appropriate that at 37 years fewer types have differentiated than at the age of 45 years.

Four Types of Shortened Achievement Careers

Let me briefly describe these four types resulting from the analysis of shortened trajectories and compare them with the 6-cluster solution attained on the whole sample:

The *Financial Career* type unites financial banking-careers and financial careers. It is not attached to a certain branch – even if banking and service to enterprises are slightly overrepresented. Rather it is characterised by the dominance of financial functions. The majority of its members begin and then remain in financial functions; only a minority moves to marketing and personnel. This kind of pathway is possible both in industry and in service, but is overwhelmingly limited to large enterprises. Financial careers are among the most successful: in the wake of an average 4 year period as employees, follows 4 years as lower manager of, and 3 years as middle manager before moving to an upper management position. Almost nobody in this cluster passes through self-employment or becomes self-employed towards the end of their occupational trajectory.

Compared to the other careers, *Staff and Self-Employed Careers* rarely get in touch with large firms. Its majority unfolds either in micro-, little or middle enterprises, up to 250 employees. All the other dimensions are characterised by a blend between staff-functions and typical stages of a self-employment career, resulting in a lack of a dominant function or economic-branch. This is also the reason for the relative “successfulness” of the type that has to be interpreted cautiously, as it mingles heterogeneous positions. On the average the members of this type remain in employee positions for 4 years, then have 3.6 years in lower management, 3 years in middle management and 1.6 years in upper management. In addition, they spend an average of almost one year in self-employed positions.

Technical-Industrial Careers are very close to technical-industrial careers that emerged from the analysis of the completed trajectories. They occur within large, industrial firms and fluctuate between functions in production and in research and development. They are not rewarded by a quick and successful hierarchical ascension. The duration index thus shows rather slow advancement that seldom exceeds middle management: After 4 years as

employees this group moves to lower or technical management where its members stay in average for almost 7 years. Only a small group moves on to middle management, the average length in this category being 1.7 years.

Industrial-Management Careers correspond to the industrial management careers known from full-length analysis. The members of this group either work in industry or personal-service branches, but not in banking or in the upcoming services to enterprises. If in the early occupational stages they labour in the classical engineering functions – production and research/development – they switch increasingly to managerial or staff functions by their early thirties. Marketing and sales, personnel and finance are the most important functions for these engineers. In average they remain each 5 years in employee and lower management positions, but they also move in relatively high proportions to middle (2.7 years) and high (0.7 years) positions.

Compared to the full-length 6-cluster typology, the 4-cluster solution does not include the “self-employed career”. What is more, it does not differentiate the financial cluster into two sub-patterns. It seems to divide engineers between managerial and technical careers. The service related careers are distinguished in a financial career and a "rest" category. The stages normally achieved later in biography – self-employment and upper management – do not yet work as differentiation criteria. This means, that the 4-clusters solution and the 6-clusters solution are rather similar and the analyses rather robust. Even manipulating the length of the trajectories does not profoundly alter the typology and the differences can be explained by the specific biographical moment of differentiation (see also chapter 7).

6.5 Orderliness, Loyalty and Rhythm with Respect to Career-Types

The career-typologies shall now be related to the indicators of orderliness, loyalty, and temporal rhythm by a T-test of the differences among the means. This allows me to test if they differ significantly (or not) in regard to these criteria.

The Full-Length Typology

Even if the general degree of orderliness is fairly high for careers of HOS-graduates, not all types of careers are equally orderly on a statistically significant level.

Table 11: ANOVA Analysis of Orderliness, Loyalty and Success by Type

Type	Orderliness	Loyalty		Temporal Rhythm				
	Proportion of orderly changes	Firm shifts by year	%	Age (lower management)	%	Age (middle management)	%	Age (upper management)
Financial-Banking	0.89	0.34	92	27.78	46	31.72	35	34.65
Technical-Industrial	0.92	0.10	100	28.66	45	35.65	8	40.33
Service Staff	0.76	0.22	64	28.73	61	32.95	31	33.32
Industrial Management	0.84	0.29	76	28.45	53	31.80	25	35.00
Small and Middle Firms	0.73	0.14	77	29.02	50	31.20	37	35.64
Financial	0.83	0.25	68	28.68	75	30.91	53	33.33
Total	0.83	0.24	80	28.47	56	32.06	32	34.13
F-Statistic	7.710	4.161		0.571		3.708		1.737
Significance	0.006	0.001		0.722		0.003		0.131

The industrial research-career with 92%, in particular, but to a lesser extent also the Financial-Banking Career with 89%, is dominated by hierarchically orderly moves. All the other types of careers are slightly less orderly, but still far away from a disorderly or even chaotic pattern: 76% of the moves of the staff-career in the service sector and 73% of those of the small-enterprise-career are orderly.

The Technical-Industrial Career, with the small-and-middle-firm career in middle, is at one of the most loyal. The value of 0.10 means that members of this cluster change the firm on an average only every 10 years. All the other career types are significantly less loyal: the Financial-Banking Career (with an average shift every 4 years), the industrial-management (every 3.4 years) and the Financial-Banking Career (every 2.9 year) stand out as trajectories signalled by frequent firm shifts. As the shifts do not occur linearly along the occupational trajectory, these results must be interpreted with caution. It is possible that the comparatively frequent changes of the Financial-Banking Career are partially due to the average younger age

of its members and to the fact that a large part of them have not already reached the stiller waters of the second half of the career.

With the exception of Small Firm Careers, where “higher management” has a different meaning (in terms of power or span of control), I am also able to compare career types with respect to success. A glance at the shares reaching lower, middle or upper management suggests the technical or lower management does not have a univocal meaning¹¹⁹: in the financial career a certain number of people reaches middle management without passing through technical or lower management. In the Technical-Industrial career, even though 100% reach the technical and lower management level, a mere 45% moves to the middle management-level. This also means that the steepness of the pyramids seems to differ: the selection is considerable for the industrial-technical career at each hierarchical step (100-45-8) and much more flatter for the financial career (68-75-53). When it comes to average age at which the actors move hierarchically, only the shift to middle management is significant in statistical terms. However, the moving-age is linked to the success score of careers. The least successful career-type – technical industrial career – is also the one with the highest average age (40 years) at attainment of upper management. The most successful one by contrast – financial career – is also characterised by one of the youngest average ages at the moment of attaining upper management.

In terms of success, two poles appear: the technical-industrial and the financial career. All other careers are in between those two types. Financial careers are conspicuously less successful in the banking and insurance sector where merely 17% of the individuals reach higher management at a slightly more advanced age than in the “general” financial career-type. The results, however, have to be interpreted with caution because the types are differentially related to age and by consequence to career stages. In order to control for these effects I will now glance at the shortened typology and its association with orderliness, loyalty and success.

The Shortened Typology

Since in the shortened typology sample all trajectories have the same length, I can avoid some of the limitations of the large sample. Inversely, all trajectories shorter than 17 years are

¹¹⁹ It includes also semi-autonomous or scientific positions with no direct subordinates.

excluded and shifts that potentially occur at later stages of career - such as moves to the upper management - may be not adequately covered.

Table 12: Anova Analysis of Orderliness, Loyalty and Success by Type (Shortened Trajectories)

Type	Orderliness	Loyalty		Temporal Rhythm				
	Proportion of orderly changes	Firm shifts by year	%	Age (lower management)	%	Age (middle management)	%	Age (upper management)
Financial	0.69	0.17	72.0	28.09	59.1	30.28	29.0	32.00
Staff + Self	0.58	0.22	60.8	27.99	50.0	29.34	25.7	31.32
Technical Industrial	0.84	0.12	92.2	28.20	35.3	31.86	3.9	33.50
Industrial Management	0.64	0.19	66.2	28.02	42.3	30.05	14.1	31.90
Mean	0.68	0.18	72.8	28.08	46.7	30.19	18.2	31.81
F-Statistic	7.99	6.22		3.45		0.43		1.86
Significance	0.000	0.000		0.018		0.734		0.148

As in the long version, the Technical-Industrial Career is characterised by great orderliness. Within this type almost 85% of the moves are orderly, compared to only 58% respectively 64% of orderly moves among the members of the staff and self-employment-type and the industrial management-type. It seems, as if an outbreak of the technological domain implies less orderly changes than engineering careers that remain within the strictly technical domain.

In general the values of firm shifts per year are rather low and also closer to each other across types¹²⁰. However, the results are still significant on a statistical level. The low rate of firm shifts per year of members of Technical-Industrial Careers stand out as a very orderly and loyal type. Consistent with the orderliness-dimension, it is again the “staff- and self-employment-type” on the one hand and the industrial management-type on the other who frequently change firms. In contrast, the financial-career type – maybe as a result of the combination of the two financial careers stemming from the analysis on the full-length trajectories – is a kind of an average type for the two dimensions, which makes it difficult to comment on.

¹²⁰ Possibly, in a cumulative logic, the gaps between the types grow over the years and the shortening of the trajectory almost automatically reduces the differences between the values of the types (Merton, 1968).

More than 90% of the members of the Technical-Industrial Career reach lower management. Only a very small minority moves to middle-management (35%) and upper management (4%). On the other extreme the financial career – with about 30% attaining upper management before 37 – is the most “successful” career. The rate of success in staff and self-employed career is almost the same, but difficult to interpret because it mingles different types of “upper management positions”. As to temporal rhythm, solely the age of attainment of lower management is statistically significant. The results indicate that the rhythms of career are very similar among the four types, with the exception of the Technical-Industrial Career. Again it is the slowest of all the other career-types.

6.6 Orderliness, Loyalty and Rhythm with Respect to Cohorts

“A cohort may be defined as the aggregate of individuals (with some population definition) who experienced the same event within the same interval of time” (Ryder, 1965: 845). As such an aggregate cohort has certain distinctive characteristics. These characteristics can be divided between those referring to the cohort itself and those referring to the historical periods the cohorts are traversing (Attias-Donfut, 1991): among the first are the differential size of the cohort or the specific distribution of certain characteristics, behaviours or attitudes. Ryder, for example, thinks that the distribution of race, mother tongue or birthplace, “tends to be fixed throughout its life in a shape which may differ from those of preceding and succeeding cohorts” (Ryder, 1965: 845). Further, such criteria can be imagined: the average educational level, the gender composition, etc. The second group of characteristics is due to the structures these people pass through and the events they experience at certain positions in their life-cycle. The cohort-specific structures, such as the common socialisation institutions, may create a specific way of perceiving and reflecting about the world, as suggested by Mannheim’s “The Problems of Generations” (1952). In the later stages of biography, the structures of the labour market present themselves in a specific form for each new birth cohort that is entering the workforce. What is more, “the occupational structure of the cohort is not crystallized upon entry into the labour force but the configuration imposed on individual economic histories has a high sequential dependence through time” (Ryder, 1965: 846). In other words, the cohorts are as aggregate exposed to the same historical events and periods at the same moment, when they occupy similar positions in the life-cycle. As Elder (1995) has shown, the specific biographical position at the moment of a historical event can have far-reaching consequences, especially if the event happens in particularly sensitive transition

phases. Those cohorts for example which, during the Second World War, were recruited by the army during the crucial years before their graduation from college, were confronted upon their return to incomparably larger problems than those who just managed to graduate before being recruited – and this miniscule difference at the beginning could have important repercussions for all the following stages of the life course (Elder, 1995). Similarly, organisational restructurings may affect careers of different cohorts differently: for older cohorts they may occur in the autumn of their trajectory, while younger cohorts are affected in a more important trial or orientation phase.

Cohort analysis has traditionally been related to analysis of historical change. On the one hand historical change, often analysed from an event-centered perspective, can be deepened and completed by cohort analysis. Historical change always partially comes about by replacement of older cohorts with their specific way of thinking and acting, by younger cohorts with different ways of thinking and action, reflecting different socialisation experiences. Successive cohorts experience different educational curricula, they are exposed to different peer-group influences and they live through different historical events. On the one hand, younger cohorts always bear the potential to put the existing order in question and may try to change it, by imposing their own ways of thinking and acting (Ryder, 1965: 848-51). On the other hand, a change in the characteristics of cohorts also reflects structural changes; cohorts are mirrors of the structural context in which they are historically living and their characteristics speak about the events that occurred during a historic time interval. The biographical structures themselves change from generation to generation. Attias-Donfut writes: “The life cycle is changing rapidly, it almost changes from one cohort to the next: the boundaries of their stages and contents, its structuration is continually changing. This means that the process of social aging, in the way it occurs through the life cycle, is a cohort effect itself” (Attias-Donfut, 1991: 115).

Instead of concentrating on the cohort size¹²¹ or its compositional characteristics¹²² in this section I will focus on the career characteristics as a measure of cohort differentiation. I hope in this way to create some insights on the career regime and its changes in the sense mentioned by Attias-Donfut. I therefore enquire into the historical alterations of orderliness, loyalty and success by expanding the analysis to birth-cohorts. I distinguish among those born

¹²¹ Which, due to the sampling problems, I cannot control.

¹²² Which, by the sampling process is already restraint to two relatively specific groups, with the same formal educational level.

before 1955, those born between 1955 and 1965, and those born between 1965 and 1975. These cohorts experienced the crises of 1974/ 75 and 1991-1994 at biographically different moments.

In most of the historical and sociological accounts of Western societies, the crisis of 1974/75 is presented as the end of the post-war “golden age.” In chapter 6 I showed that the consequences were rather uneven and that we can assume that engineers and business economists are only weakly and indirectly concerned. I assume, thus, that a majority of the better qualified males of the cohort born before 1955 enjoyed a structural context that was typical for the post war period. As one of the last cohorts of the post-war golden age, they lived the crucial periods of their careers in a context resembling, in its major traits, the “trente glorieuses.” At the time of the crisis of the 1990s, they at least 35 to 40 years old. This could mean that they already occupied positions that protected them against restructuring or even made them leading actors of those modifications. The structural accounts show, however, that older engineers and business economists have been particularly affected by the crisis. Hence, it is just as possible that this cohort is concerned by new and ruthless hire and fire policies and therefore display non-orderly trajectories characterised by frequent firm-shifts.

Potentially, the situation is very different for the cohort born between 1956 and 1965. Its members are entering the labour market and starting their careers when the glories of the “Wirtschaftswunder” are already a distant memory. If this dampened their biographical expectations during their upbringing, the chance that the 1990s crisis hit them at a strategically sensitive moment of their career is considerable. They faced this crisis when they were between 26 and 36 years of age. In these early years the career-potential is evaluated and first choices are taken, crucial for the unfolding of careers. However again, several, partially contradictory hypothesis can be made, and different scenarios sketched. Potentially, they are actually disturbed during a crucial stage of their career and thus forced to frequently change employers or accept disorderly, horizontal or even downward moves. It is not excluded though, that restructuring is coupled with firm expansions and opens opportunities, especially for a young and ambitious cohort which is in its rising career-phase. This could translate into less orderly but accelerated careers.

The cohort of 1966 to 1975 grows up with the discourse of flexibility and the pluralisation of career promises. They entered the labour market at a moment when, by the profound and joint

restructuring of banking and industrial sector (Honegger et al., 2002) new recruiting and dismissal policies were already widely diffused throughout the Swiss corporate world. Their careers began under a completely different sign. However, it is open to investigation whether or not this has been reflected in increasingly disloyal and non-orderly careers from the beginning. It is not excluded, that in times of uncertainty this young cohort is prone to seek security within large corporations and to avoid changing jobs too frequently.

The Full-Length Typology

Analogous to the analysis of the career-types, I now examine the indicators of orderliness, loyalty, and temporal rhythm by ANOVA-techniques with respect to cohorts.

Table 13: Anova Analysis of Orderliness, Loyalty and Success by Cohort

Cohort	N	Orderliness	Loyalty			Temporal Rhythm			
		Proportion of orderly changes	Firm shifts by year	%	Age (lower management)	%	Age (middle management)	%	Age (upper management)
- 1955	81	0.81	0.10	80	28.71	61	33.40	29	36.52
1956–1965	144	0.83	0.19	75	29.00	67	32.86	36	35.81
1966-1975	203	0.83	0.39	76	27.96	48	30.44	31	31.58
Total	428	0.83	0.27	77	28.47	59	32.06	32	34.13
F-Statistic		.181	21.98		2.133		9.669		15.813
Significance		0.834	0.000		0.120		0.000		0.000

The outcomes show that the careers of engineers and business economists who were born before 1955 are not more orderly than those of their homologues who entered occupational life in the 1980s and 1990s. The members of all three cohorts, when changing the vertical position, have about an 80% chance of moving to the next higher hierarchical level. None of the crises seems to have affected this aspect of career achievement.

By contrast, members of younger cohorts are significantly less loyal than are their older colleagues. While the members of the cohort born before 1955 changed their employer on an average only every tenth year, the members of the youngest cohort apply to a different firm almost every 2.5 years. The decline of loyalty itself is not only conspicuous, so is the exponential speed of the trend: the proportion of firm-shifts doubles with each cohort, from 0.1 shifts per year for the oldest to 0.19 for the intermediate and finally to almost 0.4 for those

born between 1966 and 1975. Again, this covers only a particularly tumultuous stage of the younger cohorts and therefore has to be read with caution.

Similarly, the analysis success and temporal rhythm must be handled carefully. For all cohorts more than 75% of the engineers and business economists reach lower and technical management. Compared to those in the oldest cohort, those born between 1956 and 1965 seem to attain middle and upper management in higher proportions, 67% against 61% for middle management and 36% against 29% for upper management. Especially for these shifts which in average occur well in thirties, the results of the youngest cohort are not very sound, because a certain proportion of them might still have a further promotion in sight. The age at the moment of hierarchical shifts is statistically significant for middle and upper management. However, this is difficult to control and interpret: the young age of the youngest cohort at the moment of moving to middle and upper management, is potentially due to the fact that they have not yet reached these stages.

The conclusions from this analysis, based on a typology of completed and uncompleted trajectories, have to be treated very cautiously. They run a rather great danger of being based, at least partially, on a “generational fallacy” (Riley, 1973). Because it is very likely that career moves are not linearly distributed along the trajectory, the indicators of changes (underlying all three measures) are problematic and at best approximate. It is possible also that recent structural changes have already influenced younger cohorts, but that this effects do not yet manifest themselves fully when it comes to orderliness, loyalty or rhythm. In addition, forthcoming events can still transform the conditions for the youngest cohort (whose trajectories remain uncompleted) and considerably alter the final comparison of careers when all trajectories are completed. The problem appears in its most obvious form in the analysis of success and career rhythm. In average the three moves – if they do occur – occur for each level at a later biographical moment. Lower/technical management, for example at 28 years, middle management at 32 years and upper management at 34 years in average. Whereas all members of the cohort born before 1955 are at least 45 years old, there is a certain proportion of people who will attain upper management, but that has not attained it yet (in 2005, the year of the survey) in the middle and to an even larger extent in the youngest cohort. At the same time I cannot control for this proportion, because by definition it remains hypothetical. In order to minimise this potential generational fallacy I return now to the shortened typology.

The Shortened Typology

The shortened type is based on a sub-sample of 290 individuals with a completed career with a length of 17 years, from 20 to 37 years. I simply repeat the Anova analysis with the typology of shortened trajectories that I have used for the long typology. The reduction of the length of trajectory does not touch the N of the two older cohorts, but quite drastically reduces the weight of the youngest one, as a rather large part of this group has not attained yet the age of 37. However, all the events occurring subsequent to age 37 are excluded from analysis, independently of cohort-membership.

Table 14: Anova Analysis of Orderliness, Loyalty and Success by Cohort (Shortened Trajectory)

Type	N	Orderliness	Loyalty		Temporal Rhythm				
			Firm shifts by year	%	Age (lower management)	%	Age (middle management)	%	Age (upper management)
- 1955	81	0.64	0.10	72.5	27.43	42.5	30.04	13.7	31.55
1956 - 1965	144	0.71	0.19	71.1	27.97	52.8	30.35	19.7	31.89
1966 - 1975	203	0.68	0.23	70.1	29.11	46.3	29.95	28.4	31.84
Total	428	0.68	0.17	71.2	28.08	47.2	30.19	20.6	31.81
F-Statistic		1.19	9.49		0.77		0.46		0.25
Significance		.305	.000		.464		.630		.782

As in the analysis on the full-length trajectories, the orderliness does not significantly vary across cohorts. This supplementary analysis corroborates the hypothesis of a stable orderliness and shows that it is not due in any way to an unequal comparison of different career stages. The general proportion of orderliness, however, is lower than in the analysis on the full-length sample: this means that in the first years of a career, shifts are probably less orderly than in the later periods.

By contrast, loyalty varies significantly among the three cohorts, although the trend towards a decline of loyalty is not as pronounced as in the full-length perspective. The difference is particularly strong between the cohort born before 1955 and the one born between 1956 and 1965. Even if the number of firm shifts continues to grow, the differences are milder between the middle and the youngest cohorts. This “correction” of the trend could be due to the

elimination of a large number of very young individuals who in their “trial-phase” change jobs very frequently in order to find the “right” job¹²³.

None of the values of the temporal rhythm-dimension proves to be significant. In addition, as already mentioned, the age at the passage to upper management would be especially delicate to analyse, as a considerable part of those moves occurs after the age of 37. The 28% of the youngest cohort that reaches upper management – against 19% and 13% of the prior cohorts – could be an indication that younger engineers and business economists attain this level earlier in their life than their older colleagues.

The danger of generational fallacies is minimised with this shortened typology and the analyses clearly showed that the results of the long typology, if not in their direction, then in their extent have to be corrected. However, the shortened typology is not a simple improvement of the long typology. I am rather confronted with a trade off between the long and the short typology. The short typology only covers a trajectory of 17 years, while some of the moves, and especially the important moves to higher position, might occur only after age 37. The interpretation of the cohort differentiation remains therefore problematic. Especially the second career part cannot be integrated into the analysis. As there are some indications that with restructuring this specific phase has become particularly vulnerable¹²⁴ this is regrettable. The analysis of career objective and the comparison of career characteristics according to cohorts can give us some hints on the transformation of career achievement; however, these are far from convincing. Perhaps the complementary qualitative part, can give me some additional insight, which can confirm or refute the still shaky hypothesis that results from this quantitative analysis.

The Association between Types and Cohorts

Certain career types are rather young (financial-banking), while others (technical-industrial, self-employed) are composed of a greater proportion of older members. This might be due to weaknesses of the sample¹²⁵. It could, however, also result from the fact that certain types of

¹²³ However, it is clear that the structural possibility of firm changes hinge also on the size of the firm. In small firms when someone wants to climb hierarchically he is often forced to change the firm, while in large firms vertical changes can be combined with loyalty. On the other hand the distribution of firms with different sizes differs according to the historical period, but also according to the economic branch. Therefore we have to interpret these results cautiously.

¹²⁴ See for example the analysis of unemployment by age class (Chapter 5.4), but also for example : Honegger, 2002 ; Buss-Notter, 2006 ; Nadai & Maeder, 2006.

¹²⁵ See chapter 4.5

careers are more typical among younger cohorts, while other may have dominated older ones. In order to shed light on the relationship between types and cohorts, I applied a multinomial logistic regression to cohort and career type. Because of the problems of the long typology with a possible generational fallacy I used the shortened typology where all the trajectories have the same length. In addition, I introduced gender and (learned) occupation as auxiliary variables, to control for effects that might be fallaciously attributed to cohort. This results in the two following models:

Table 15 : Multinomial Regression Analysis of Types by Cohort, Gender and Discipline

		Model 1			Model 2		
		Staff and Self-Employed	Technical-Industrial	Industrial Management	Staff and Self-Employed	Technical-Industrial	Industrial Management
Cohort	- 1955	2.548*	3.640*	5.241**	1.444	0.878	1.948
	1956 - 1965	1.775	2.686*	2.609*	1.881	2.128	2.608
	1966 - 1975	1.000	1.000	1.000	1.000	1.000	1.000
Gender	Female	--	--	--	1.562	1.125	0.261
	Male	--	--	--	1.000	1.000	1.000
Occupation	Economics	--	--	--	0.154**	0.011**	0.047**
	Engineering	--	--	--	1.000	1.000	1.000

Note: The Financial-Career is the reference category. Odds ratios are indicated. Coefficients are significant: p < 0.05*; p < 0.001**

Model 1 shows that Financial Career is particularly widespread among the younger cohorts – all the other career types are more popular among the middle and even more in the oldest cohort. Those born before 1955 (and to a lesser degree also the middle cohort), compared to the financial-career are over-represented in the technical and industrial careers, particularly in the industrial-management career. Members of this cohort are 5 times more represented in the industrial-management career, 3.5 more represented in the Technical-Industrial Career and still 2.5 more represented in the Staff- and Self-Employment Career. In Model 2 these effects are controlled by gender and occupation: it appears that the cohort effects found in Model 1 are in large part due to occupational membership. None of the cohort-variables are significant anymore; occupation, in contrast, becomes very significant. Business economists are clearly underrepresented among self-employed careers (odds ratio: 0.154), Technical-Industrial Careers (0.011) and Industrial-Management Careers (0.047). Inversely, business economists are better represented in the Financial-Career than in the Staff and Self Employed Type and in the two industrial career types. Gender has no significant influence on type of career.

At first sight, one could conclude that, when controlled for occupation, there is no significant variation of cohort among types. In older cohorts, Technical-Industrial Careers or Industrial-Management Careers have not been more common per se. The regression analysis confirms that certain career types are very closely related to specific occupations. As in the shortened typology only the Staff- and Self-Employed Career is a mixed category, including engineers and business economists, all the other types are dominated either by economists (financial careers) or engineers (technical and industrial management careers) this is not surprising. I have shown however, in chapter 5 that in absolute and relative numbers the number of HOS engineering graduates had been either stagnating or declining in recent years, while the number of business economists is slowly growing. It is therefore possible that the proportion of a certain career-type within a cohort depends on the number of graduates that supply those disciplines. This is why the distribution of types according to cohorts could reflect the structural age distribution of engineers and economists. Therefore, the career-types dominated by engineers, would be more common in older cohorts (because of the relative lack of young engineering graduates); business economists have become younger as a professional group in recent decades and would therefore be better represented in the younger career-types. If there is a relation between cohorts and career types, it is not direct. It could consist of a shift in numerical dominance from engineers to business economists. This finding, however, has to be treated with great caution; not only the shaky basis of the sample, but also the fact that this effect is not controlled by other groups who compete potentially for the same jobs and positions (as for example engineers and business economist with an university degree) makes it difficult to draw clear conclusions.

6.7 Associations between Occupational and Familial Trajectories

I have shown that engineers and business economists can be divided into four family trajectories according to the moment of family starting. I distinguished the types "marriage, very late children", "early marriage and children", "single, very late children" and "early marriage, late children". In this section I shall relate these family trajectories with career-types. This allows me to understand if certain types of careers favour specific family trajectories or inversely, whether certain family events lead to an adaptation of occupational trajectories.

Correspondence Analysis of the Association between Family Types and Career Types

In order to obtain a relational image of these associations I began with a simple correspondence analysis. This is a method of visualisation for picturing the associations among the variables of a two-way contingency table. Figure 33 shows the scatter-plot of this 2-way analysis, for which I used chi-square distance measure, the standardisation method that removes rows and columns and a symmetrical normalisation.

Figure 33: Correspondence Analysis Relating Career Types to Family Types



Let me first glance at the amount of inertia (variance) explained by the two dimensions. The first, horizontal axis has an eigenvalue of 0.41, the second only of 0.14. Therefore the total inertia of the computed analysis is 0.55. The horizontal axis differentiates careers dominated by engineers from business economist-dominated careers: on the left side of the space are small-business careers, technical industrial careers, in the middle are technical management and service-staff-careers (the two mixed types) and on the left are the two financial career-types. The family trajectory-types are organised according to the moment of familial settling: on the right I find the two types characterised by early marriages, while on the left it is the

single-type and the marriage with late child (i.e. rather late family-starters). Engineering-based careers are linked to early marriage and children, while business economists seem to postpone their career and in some cases even remain single. It seems as if the careers in the financial and banking sector, for example, are incompatible with the start of a family. Two types of constellations seem to be conspicuous: Technical-Industrial Careers are strongly correlated with early marriage and child trajectories. This could mean that those who start family early opt rather for a “secure” and slow career in the technical domain or inversely, that the foreseeability and security associated to this career-trajectory allows for an early family start. Second, the Financial-Banking Careers are in an elective affinity to the marriage, very late child-trajectory and to a lesser degree also to the single, very late child-trajectory. This is may be due to incompatibilities between career and family life, for example because these jobs are especially demanding or insecure.

Contingency table measuring the strength of the association

In a second step, in order to look at this relation from a different angle and to acquire an impression of its strength, I relate the two typologies with a simple crosstab and measure the strength of their relation with Cramer’s V.

Table 16 : Crosstab between Career Types and Family Types (in %)

	Marriage, very late Children	Early Marriage and Children	Single, very late Children	Early Marriage, late Children
Financial Banking Careers	28.4	16.2	40.5	14.9
Technical Industrial Careers	14.3	37.1	22.9	25.7
Service Staff Careers	19.8	22.0	30.8	27.5
Industrial Managment Careers	14.9	28.4	32.8	23.9
Small Firm Careers	28.6	35.7	10.7	25.0
Financial Careers	21.3	16.3	32.5	30.0
Total	21.1	23.2	31.2	24.5
Cramer’s V	Value= 0.147		Significance : 0.059	

Cramer’s V measures the strength of the association between two nominal variables. Values between 0.1 and 0.2 are considered to be weak, between 0.2 and 0.3 they are moderate and

between 0.3 and 0.45 they are considered to be strong. All values from 0.45 to 1 (the perfect relationship) are considered to be redundant. Consequently the value of 0.147 in the table is weak. This result is reflected in the measure of significance. In fact, the relationship between the two typologies with a value of 0.059 is not significant on the 0.05 level. There is no statistically significant association between the type of family (as defined in the typology) and the career type. As the value is nevertheless rather close to the significance threshold, I make some very cautious interpretations, as a complement to the interpretation of the correspondence analysis: It seems that especially the technical industrial Careers and even more so the Small Firm Careers are only seldom linked to a prolonged single hood. However, these categories seem to be linked to a family model with an early marriage and children. As a kind of opposite pole the financial banking career members seem to be overrepresented in the less traditional family models (single, late children) and underrepresented in the more traditional models (early marriage and children).

Which Associations between Occupational and Familial Trajectories?

In order to control the association between family types and career types, I calculated a multinomial regression analysis which includes cohort and gender as control-variables. These two variables can help to explain the absence of a statistical relationship between the two typologies.

Table 17: Multinomial analysis of family-trajectories (odds ratios)

		Marriage, very late Children	Early Marriage and Children	Early Marriage, late children
Career Types	Financial-Banking	1.394	1.281	.496
	Technical-Industrial	.734	2.111	.991
	Service-Staff	.841	1.098	.869
	Industrial-Management	.621	1.417	.729
	Small Firm	2.209	2.602	1.594
Cohort	Financial	1	1	1
	- 1955	3.391*	7.015**	2.242
	1956 - 1965	3.391	2.321*	1.570
	1965 - 1975	1	1	1
Gender	Female	.481	.251*	.387
	Male	1	1	1

Note: Category of reference in dependent variable is "Single, very late Children; Odds ratios are indicated. Coefficients are significant: $p < 0.05^*$; $p < 0.001^{**}$

The analysis confirms that there is no significant link between a specific kind of career and family-trajectories within the sample. The type of family trajectory, however, hinges on the birth-cohort and gender: While members of older cohorts, particularly those born before 1955, tend to have more traditional family trajectories, characterised by an early marriage and early children, the youngest cohorts making career tend to stay single. This means that independently of the type of career, it was probably easier for earlier cohorts to reconcile family and career. This is no longer the case for younger cohort. But when confronted with the incompatibility of career and family, the members of our sample tend to adapt their family life (by remaining single and having children later) instead of changing their occupational patterns. The multinomial regressions displays also, that this choice of a single-life, in case of incompatibility between career and family, is particularly widespread among women. For them it is nearly impossible, or at least far more difficult than for their male colleagues, to reconcile a career with a family life of the "early marriage and children" type.

6.8 Conclusions

From 1970 to 2000, the very large majority of engineers and business economists holding a higher occupational school diploma pursue actually careers that are characterised by

incrementally upward moves. For one-third of engineers and business economists, trajectories lead to upper management positions and still more than 50% enter middle management. At the same time, these careers are chronologically ordered: in order to move to upper management one has first pass through lower and then middle management. While on the average the engineers and business economists of the sample reach lower management at 28, they move to middle management at 32 and to upper management at 34 years¹²⁶. In addition, it seems that those who attain lower and middle management at an earlier age, will in larger proportion reach upper management. An accelerated rhythm at the beginning of career is thus a sign of success and leads to further success in form of additional promotions.

This picture of the objective trajectory corresponds to "a typical sequence of positions" in the terms of Hughes and comes quite close to what I have described as an "achievement career" in the introductory heuristic model. However, achievement career in Switzerland does not exactly correspond to the picture drawn in the 1950s by sociologists such as Whyte (1963 [1956]). Even though they do not change their firm every year, almost half of engineers and business economists change their employer 2 to 3 times, and more than a quarter does it 4 times or more. This means that the "organisation man" has in Switzerland always remained more of a caricature than reality. Even though the variety of individual career is broad, the trajectories of engineers and business economists can be reduced to a small number of typical careers which make sociologically sense and correspond to socially recognisable pathways. It also seems that career achievement has not remained completely stable in the last 30 years. I can observe some interesting difference according to cohorts.

Career Types

Analysis by types reveals that achievement careers cluster into six groups. Engineers either become developers or planners in large industry firms, or planners in small bureaus. These three types of career represent the three social figures of the engineer in Switzerland: the engineer as researcher and technical creator, the engineer as small independent planner, and finally the engineer as a social climber (see also Barrial, 2006). In many ways the Technical-Industrial Career is the archetype of a loyal and orderly career. It is the only one of the six types that features high orderly upwards movement and few firm shifts. It almost perfectly fits the picture of the organisation man. However, cluster analysis indicates the group represents, with less than 10% of the sample, only a small minority. In addition, it is by far the least

¹²⁶ As I mentioned already not all the engineers and business economists arrive at these stages and this fact may also have an influence on the average age at which they attain these thresholds.

successful and the slowest career. In fact, this is the only one whose members do not move to middle and higher management in substantial proportions. The members of the Industrial-Management type are to a large extent engineers who quit the technical domain in the direction of more managerial tasks (human resources, marketing, or finance). Interestingly, the careers of these people are characterised by breaks on different dimensions: their outbreak of the technical domain involves more shifts between firms and they face also more “non-orderly” career-steps. In the long run, however, those who “break out” attain higher management in considerably higher proportions and at a younger age than purely technical engineers. In comparison to trajectories of business economists though, these Industrial-Management Careers are still significantly slower and less successful.

Both financial-oriented career types are particularly quick and successful. Whereas these individuals apparently shift easily between firms or economic branches, they stay more faithful to their function than all other types. It seems that financial functions facilitate the shifts between branches and firms and *therefore* serve as a privileged channel to the top. What are the differences between the two types of financial careers now? Pure financial careers are less orderly, more loyal, and by far more successful than its sister careers in the banking and insurance branches. These individuals also shift more often between branches and types of enterprises. Even if this causes an increase in the number of non-orderly changes, in the long run they pay off, as they do not involve a functional reorientation and are supported by the transferability of financial knowledge. Financial-banking Careers, in contrast, stand out by the simultaneity of a high orderliness and high-rates of firm shifts. It could be that the Financial-Banking Careers are “closed in” in one sector, ruled by relatively homogeneous mechanisms of recruiting and promotion.

Cohorts

Cohort Analysis can be an interesting tool to examine social change. New cohorts, as aggregate of individuals who experience the same events, acquire characteristics that are often different from those of the preceding cohorts and are therefore a potentially important factor of social innovation. Inversely, the characteristics of a certain cohort can also reflect the structural changes of a certain historical area. Therefore I study if changes in the career characteristics – orderliness, loyalty and temporal rhythm – could enhance my understanding of the structural changes in the 1970s and 1990s.

A glance at the result of the cohort analysis using the typology shows that loyalty to the firm declines considerably over time. While the cohort entering the labour market in the 1970s remained rather loyal to its firm, younger cohorts are changing firms more often. Surprisingly, the decline of loyalty is not followed by a decline of orderliness. All types taken together, only about 20% of the changes are non-orderly. This means that orderliness is not functionally and necessarily coupled with loyalty; the link between loyalty and orderliness is loosening. Whereas the careers of the cohort up to 1955 resemble in many ways the technical-industrial-career, the trajectories of the younger cohorts approach the career pattern of the Financial-Banking Career. However there are two major methodological problems with this approach. First I have to compare completed and uncompleted trajectories, which raises the danger of generational fallacies (Riley, 1973). This means that differences that are due to the position in the life cycle are fallaciously attributed to the impact of the cohorts. Specifically, it is possible that even though the indicators for orderliness and loyalty, even though they are standardised by the number of years spent in occupational life, overestimate the non-orderliness or disloyalty of the youngest cohort, because the real course of their later career could not be integrated in the analysis. Second, we should bear in mind that the careers of the cohorts coincided with a different economic climate and that their specific branch may also have changed their internal structures and/or the relationship to other branches. Therefore it is possible, or even likely, that an engineering career in 1970, for example, is different from an engineering career in 1990. To remedy some of these shortcomings, the same analysis is made with the shortened typology, where all the trajectories have the same length. On the one hand, this analysis confirms most of the results attained in the examination of the long typology; only the effects of declining loyalty are weaker in the shortened type analysis. On the other hand, some of the events that tend to occur in later career phases, such as the move to upper management, cannot be covered by the shortened typology, which covers only the trajectories from 20 to 37 years. Therefore the results of the shortened typology must also be treated with caution.

Career and Family

In a final part I examined the relationship between family-types and career-types, in order to shed light on potential influences of the occupational trajectory on the family life. I calculated a correspondence analysis to get a general picture, a 2-way contingency table to measure the strength between the typologies and a multinomial regression analysis to control the association for other variables, such as gender and cohort.

The correspondence analysis suggests that Technical-Industrial Careers are typically related to a family trajectory characterised by an early family starting combined with an early child. Financial-Banking Careers by contrast are especially close to a trajectory characterised by single status and no children. A second result concerns the differences between engineers pursuing a Technical-Industrial Career and those who make an industrial-management career. The latter are closer to family-trajectories characterised by a latter family starting and in particular by the later birth of the first child.

The contingency table shows that the association between the two typologies is rather weak and statistically not significant. This means that the occupational trajectories of engineers and business economists are not reflected by specific family trajectories, at least when these are conceptualised in terms of marital status and the presence of children. Inversely, as the causal direction between the two typologies is not clear, it might also mean that the familial trajectory has no statistically significant influence on the occupational trajectory, a result that confirms studies on the occupational trajectories of Swiss men in general (Widmer et al., 2003). Unfortunately, for pragmatic reasons, more questions on the family life could not be included on the questionnaire. It is however, not excluded that the differing occupational trajectories, such as attained in the achievement career typology, would have had an influence on other aspects of family life. Specifically, it would have been interesting to know more about its influence on the interaction style of the family, the satisfaction in the couple or the level of conflict in the couple (Widmer et al., 2003).

The multinomial regression analysis conducted on the relationship between the two typologies, using gender and cohort, allows me to dig a little bit deeper. It reveals that the family trajectories are influenced more by cohort membership than by the occupational trajectory. Especially the cohort born before 1955, and to a lesser extent the cohort born between 1956 and 1965, marries earlier and has children earlier. The youngest cohort stands out as a group that finds itself significantly more often in the type “single, very late children”. However, the analysis employing cohorts suffers from the same shortcomings as do the other cohort-related analyses and therefore has to be interpreted cautiously. It is also interesting that the female engineers and business economists are significantly less well represented in the “early marriage and children”-type than are their male colleagues.

7. Subjective Careers of Engineers and Business Economists

7.1 Introduction

In an adaptation of Hughes' definition of "subjective careers" I consider the subjective achievement career as the subjective perception of the trajectory's temporal and sequential structure. This use of the subjectively perceived "factual" trajectory implies not that the structural sequences defined in the previous chapter are necessarily relevant to the actors and their strategies. In other words, the congruence or to the contrary the incongruence between "objective" and "subjective" careers is not given per se but object to empirical variation. Only a examination of the way "the person sees his life as a whole and interprets the meaning of his various attributes, actions, and the things which happen to him" (Hughes, 1937: 410) sheds light on the subjective relevance of orderliness, loyalty and career rhythms.

According to Kelle and Kluge, an examination of subjective careers with qualitative methods produces complementary result on aspects that cannot be addressed by statistical procedures (Kluge & Kelle, 2001). The temporal structure for example can be analysed more finely and more deeply, because now a larger number of temporal events, transitions and processes can be included, some of which are difficult to operationalise with quantitative methods. The qualitative material can also reveal alternative, "actor-informed" meanings and interpretations of definitions I used to describe objective careers. I can show what terms as "loyalty" or "orderliness" mean to the actors in specific situations and in particular periods of their biography.

Second, an analysis of career perceptions sheds light on the subjective relevance of the objective sequence structures and their changes. It can thus operate as a confirmation by convergence or, to the contrary, cast doubts on quantitative results in case of divergence. In general, the "subjective echo" allows me to improve the interpretation of the objective trajectories. If objectively un-orderly careers are also subjectively perceived as such I can refine my interpretation. In this case, the actors may react with "rational" strategies aiming to bring back a certain culturally accepted "order" in their trajectory. If to the contrary, they do

not subjectively experience changes of the degree of orderliness as such, this may result in a vague and diffuse "malaise" and subsequently in completely different strategies.

Following the perspective of Schütze (1983), I try to identify certain career phases, to describe their beginning and ending, the events that characterise them, the organisational context in which they occur and the transitions between them. I try to demonstrate during which phases the types biographically begin to differentiate and point out to the differences of perception that are in each case attached to a specific sequences of statuses and positions.

7.2 Data and Method

In the following lines I present the data and sample that I rely on for this chapter. I also describe the analytical procedures I used, and in a longer section I explain the potential problems that are linked to such an analysis.

Data and Sample

The following analysis in this chapter is based on my qualitative interviews with a sub-sample of 30 engineers and business economists. These people, after having filled out the questionnaire, agreed to meet me for a face-to-face interview, which lasted 1-2 hours. They are probably a sub-group that is eager to speak about their career and also about private matters. Therefore, besides questions of sampling methods, it is from the start not a completely random sub-sample. However, this eagerness to speak about one's own career concerns people who are successful in their career (for example #6, #10, #15 or #18), as well as people who are undergoing a particularly difficult period in their career (for example #5, #16 or #12). It seems that this aspect is to a certain extent balanced, because a special interest in career can have different origins. Other sources of sampling biases, such as gender, are more difficult to handle: besides the fact women are underrepresented among engineers and business economists, when it comes to the response-rate of the questionnaire, they are also underrepresented. I explain this by the masculine connotation of the term career and the ideas that are linked to it. Women, and even women who have chosen "masculine", "career occupations", seem to feel less authorised to speak about their career than men do. The fact that two or three of the women who returned the questionnaire, refused to fill out the family

question¹²⁷, could be a further hint that very quickly the talk about careers for women leads to sensitive questions, for example about family, which men are never asked.

To sum up, it is likely that the subgroups of those who agreed to participate in a qualitative interview are slightly biased. From there on, however, based on the 174 respondents who agreed, I used a sampling-plan based on the results of the typological analysis. By choosing 4 to 6 individuals by type, further distinguished by cohort (and in special cases by occupation), I have constructed a sample that sufficiently covers the theoretical space of the possible in which these types of careers are found in Switzerland – of course more interviews would have been very welcome (Kelle & Kluge, 1999). Especially, certain theoretical dimensions at the margins of my interest, such as family life, are not always covered systematically enough. Because of time constraints, I had to limit the sample and concentrate on the theoretical dimensions of career itself: type (branch, function, position and firm size), cohort and occupation. The sections of the interviews that have been used for this chapter are in the first place the narratives about growing up, entering professional life, and the course from then on until the present moment. Whereas the narratives about the period of youth are uniformly at the beginning of the interviews, the later biographical phases are more dispersed across the interviews and of course not always narrated in a chronological order (Bertaux, 1986).

Analytical Strategy

The analytical procedure used to analyse the phases of career correspond to the method proposed by Schütze's (1981; 1983) writings on the biographical interview. In order to understand the biographical categorisations that engineers and business economists apply to their own career I tried to identify the phases and sequence of their narratives. Particularly important in this respect are narrative markers of beginnings and endings of phases. I therefore intensively read each interview and searched for terms that divided biographical time, such as "then I began...", "after this I left", "slowly the feeling grew that I...", and "I kind of slipped into a new task". Such markers, as well as oppositional comparisons of biographical periods, references to age, to the temporal length of certain processes, to certain points and events in time and their subjective evaluation, hierarchisation and ordering allowed me to get for each of the interviewees a rough idea of its subjective sequential structure.

¹²⁷ In one case with some rather harsh comments, in the sense that this is her own business and regards nobody else.

These rough phases were then coded with the help of the software package *Atlas.ti*. This tool allowed me to code the different phases and to extend them to all the interviews. Thanks to the sorting functions, all the excerpts dealing with one specific could then be compared to each other. In this way I could first deepen and solidify the phases; by a steady comparison of the interviews it was possible to understand its main components, its temporal structure, the most important actors and structures that, at a specific transition, intervene in the minds of the interviewees, the decisional mechanisms and the identity issues that are at stake in their conception. However, in order to meet the specificity of each phase and transition I refrained from applying a general scheme of dimensions, that would have precluded a fine description of the process at work. I try, however, to make it clear and explicit at each phase and each transition of the following description of the subjective careers to which dimensions I refer. Second, I tried to find differences between the types of objective careers. It appeared however, that the objective career types, although they have been at the basis of the sampling choices for the qualitative sub-sample, are not the only dimension of comparison that may lead to a differing subjective temporal structuring of careers. The occupation or the economic branch, for instance, is revealed to be at least as important as the objective career types. The differences between the subjective perceptions of career across the career types were less pronounced than I had expected. Several of the phases I considered as different, career-specific biographical phases could, upon further comparison, have easily been conceived of as variants of the same phase. Therefore I made the following decision concerning the presentation of the subjective careers: they will not be presented separately according to the objective career type. Instead, I will present a general scheme of subjective career phases and point out, when necessary or particularly interesting, that this phase or the other decision is more common, typical or widespread in one type, occupation or economic branch. This means also that, although it is more insightful than a presentation separated by types, this general subjective career scheme has some weaknesses. Not all of the phases I identified are actually part of all the careers (the methodological difficulties are discussed below). In other cases, people are skipping phases. In other cases their duration is strongly differing by objective career type or branch. Apart from these differences, the fact that all the biographies can be tackled by the same analytical framework is also a first hint that 1) despite of the “objective” differences with respect to orderliness, loyalty and rhythm and 2) despite the great variety of implied sectors and firms, there seems to exist a common, culturally shared model of career achievement. Even if the specific phases differ in their length or are

sometimes skipped, the ordering of the spells and their normatively guiding character is obviously not put into question. The analysis of these interviews and their underlying subjective categorisation of career shows that engineers and business economists conceptualise their career retrospectively in 5 phases: “awakening”, “moult phase“, “trial phase”, “consolidation and ascension” and “cooling out”.

The excerpts from the interviews are presented in two forms. I present longer extracts to illustrate typical perceptions, mechanisms or process. These are highlighted with a special graphic style and always preceded by the number of the interviewees and the lecture on who is eager to learn more about the individual is invited to consult the biographical portraits in Appendix 3. Second, I use single words or expression to illustrate the purposes of certain interviewees. These are put into italics in the text.

Methodological Difficulties

Two problems are inherently linked two such a reconstruction of the phases and transition of the subjective career: the problem of completed and uncompleted trajectories and the problem of autobiographical memory and narration.

The problem of completed and uncompleted trajectories is roughly the same as in quantitative analysis (see chapter 6). It is due to the fact that the interviewees are approached at different moment of their careers. Some are only 35 years old and still have the major part of their occupational life before them: the oldest was in his late 70s and had already been retired for almost 15 years. These discrepancies are a natural result of the sampling strategies, which aim at including both young and rather old individuals. Only in such a way can different cohorts and different ages be compared. It has, however, a disadvantage: as all those interviews are conducted at the same historical moment (between 2005 and 2006) some of the trajectories cover only 30, 35 or 40 years. The late career phases of those individuals cannot be compared with the late career phases of the individuals who at the moment of the interview were already 65 or even 75 years old. This is particularly unfortunate, as of course the age is directly linked to the cohort. In other words, the trajectories of the younger cohorts are systematically uncompleted and it is therefore not possible to compare the later career phases by cohorts. Worse, it is not even possible to compare the whole careers of the younger and older careers. The later parts of the first are simply still unknown to date and it is possible that they will differ from the same phases of older cohorts, either because certain

structural dynamics and events to come will give them a different turn or because the trajectory already gone through until now has equipped them with resources or representations that will lead to other career autumns. There is no real solution to this problem. It just should be translated into a cautious and humble interpretation when it comes to subjective trajectories.

The second difficulty emerges when comparing the narratives about certain career moments or career phases that for the actor who is narrating them are temporally more or less distant. In other words, it is problematic to compare the narrative about the career beginnings of somebody who is presently 30 years old and has entered career only five years ago to the narratives about the same period from somebody who experienced this 30 years ago and is now 55. As we know from studies of autobiographical memory, the past is always presented from a present perspective. The present perspective, however, is the result of the events and the course of the trajectory to date. As this trajectory that an individual has lived through can differ a great deal the same experience is at the present moment, potentially, completely differentially experienced as it has been at the time. This phenomenon of shifting evaluation can concern several dimensions: it is a problem of autobiographical memory (Reimer, 2001). Events that happened recently are very likely more “accurately”, densely and lively remembered than events that occurred 25 years ago. However, the fading of memories is not linear: events that are emotional, more meaningful, unexpected, exclusive or richer in consequences are better remembered than those that are not (Reimer, 2001: 43 – 48). It also seems that by a reminiscence-effect events in a particularly dense period from about 15 to 35, often including graduation, first job, marriage and first child, is better remembered than other biographical periods¹²⁸. There might be a phenomenon that, although linked to the function of the autobiographical memory, concerns the narrating of one’s story itself. One’s biography is always a selection of anecdotes, events and phases and their organising in a sense that corresponds to what culturally is understood by “storytelling”. According to Schütze (1981; 1983) each narration complies with a condensing (or relevance setting)-imperative, a detailing-imperative or a chronological-imperative. In other words, telling one’s life to an interviewer forces the interviewee to comply with a series of culturally determined rules that

¹²⁸ This is confirmed by most of the interviews: people tend to narrate – and to date chronologically - very precisely the events around their graduation and the first job, but tell much less about in reality much longer periods in the middle of their careers, where they remain for example for 10 years with the same firm, but in their eyes “nothing much happened”. Such phases are usually summed up with one or two sentences, whereas the first job – because it has in the eyes of the interviewee a much greater influence – is dealt with on several pages.

the analyst of the interview can exploit to understand “the sense behind the words”. However, if these narrative imperatives facilitate the analysis of a specific narration, it is not sure if they work when comparing accounts from people that refer to the *same biographical period* but are of (1) differing *age* and (2) differing *cohort membership*. The first job after graduation can differ widely, in its biographical meaning according to the position in the life cycle an individual occupies. While exerting it, it may be perceived as the most important, identity fostering work, while 20 years later it is nothing more than a little, insignificant job. Or to the contrary, it is interpreted retrospectively as a first expression of a choice that “always was an important part of his or her personality”. This interpretation however, would have never been possible at the moment of doing the job, because the individual would not have had in the meantime a whole trajectory featuring the traces of this first job.

7.3 The Awakening as Individual Breakout

In this first section I am interested in the beginning of career. By this I do not mean the “first job” but the moment when the idea or the plan to make something like a career first occurred to the interviewed engineers and business economists. This leads me to the following questions: How and when do achievement careers begin? Do they correspond to a child's dream or do people discover their ambitions only “on the road”? Are careers based on conscious decisions or on a sort of an auxiliary product of biography? These questions cannot be answered generally. The interviews of engineers and business economists, however, allow the reconstruction of how the career began or at least how they think it did.

By the term “awakening” I designate the moment when the interviewees realise that they aspire to further social ascension. At first sight, it is something they discover rather suddenly. In their own words, they “*realised*” they “*wanted to go further*”. Or more negatively, they report that at a certain moment they “*couldn't imagine themselves behind this counter for the next 40 years*”. Even if a majority of the interviewees links the awakening to a decisive encounter or experience, further elements of the narrations point to a more complex temporal structure of the phenomenon. The awakening resembles a rather slow process of concretisation. The wish to go further emerges first as a vague intuition and then transforms itself into a clearer and finally verbally expressible wish.

The wish to attend the higher occupational school is hardly ever presented by the interviewees as a children's dream. It is not a goal the interviewees "always" wanted to achieve. The wish is discovered "on the way", frequently as a substitute for biographical plans that their habitus and the milieu pressure did not allow them to aspire for (or to articulate as a desire) in an earlier phase. Before the desire "*to go further*" is formulated and announced as a concrete wish, it flashes periodically at a certain time and when the occasions present themselves. Implicit indications for the desire are, for example, flirtations with Gymnasium¹²⁹ or the choice of unusually challenging, modern and promising apprenticeships¹³⁰. In retrospect, the narrative elements about these flirtations with ambitions also demonstrate to the interviewer that the potential, in principle, was always there, but could not always manifest itself easily. After a certain time, these pre-announcements of a habitual disposition smouldering in the individuals is followed by a declaration to the entourage of the will "to go further", in most cases during the apprenticeship between age 15 to 19. A minority realises – or dares to realise – its dreams of social rise only after some years of occupational experience. This means that the moment of awakening is not embedded in clearly ordered and standardised sequence of events. There are also no indications, that the exact moment of the awakening or its specific temporal embedding would have an influence on the further development of a career.

“Normality“and Individual Breakout

The temporal structure of the awakening is only comprehensible against the backdrop of a milieu-specific conception of "biographical normality". The overwhelming majority of the future engineers and business economists come from a milieu of qualified workers or employees. In the post-war period, this ambiguous group between the working and the middle class is one of the largest in Swiss society. Consequently, the most common answer to the question of how they experience their teenage years is that they had a "normal" school

¹²⁹ Some of them hesitate to attend Gymnasium, others do attend it for some month or a year. However, they return to the "normal" curriculum, often with a feeling that this type of school is too "abstract" or "theoretic" for them.

¹³⁰ Drawing occupations, Fine-mechanic, TV- and Radio-Electrician in the 1960s and 1970s and then Electronician and IT-occupations in the 1980s and 1990s. In the service sector it always was the commercial apprenticeship, the emblem of the generalist springboard for further careers and the contrast to more feminized occupations as salesclerk, hair-dresser or medical assistant. The commercial apprenticeship is strongly differentiated, notably on a gender dimension. A closer look shows that besides female and male specialisations, a commercial apprenticeship in a bank (in contrast to smaller firms) stands for higher ambitions. Most of the interviewees consider Banking-Apprenticeships as qualitatively better and more selective and therefore as a appropriate preparation for a further career.

trajectory. The following extract, reflecting the beginning part of the interview, when the interviewee explains his school curriculum, illustrates this:

Interviewee #4: I visited the popular school, *normally* the six years of primary school and then three years of secondary school. For me the choice of occupation was rather a bit accidental. I have never been to a career advisory service, I had certain ideas about what I wanted to learn, actually it was clear that I wanted to learn a technical occupation.

For most of the engineers and business economists, "normal" means attending primary school, then secondary school, directly followed by an apprenticeship, either in a technical or a commercial domain. Inversely, the attendance of the "Realschule" (lower secondary-school in the German-speaking part) or the "Gymnasium" (school preparing for "maturity" and university) is coded as a non-normal departure from the milieu. Aside from a strong milieu-specific norm, this perception is also a "statistical normality" (a large majority of the young people chose this curriculum) and a "relative normality" (it is situated between a Realschule and Gymnasium). The distinction between the "lower" and the "normal" pathway distinguishes the milieu of the Swiss qualified workers from the milieu of the non-qualified migrants and industrial workers. The distinction between the "normal" and the "upper" pathway reflects a boundary between varying cultural and educational capital and is rooted in opposing conceptions of education and its biographical benefits. The milieu of the qualified worker and employees thinks that their offspring should first learn something "solid" which allows them to become rapidly independent from their parents. The choice of an apprenticeship is a very direct expression of this conception of normality. Often the interviewees describe it as almost automatic and self-evident. It is based on a tacit consensus among the parents, the social entourage and the individual. This consensus may be stronger in rural and traditional milieus than in urban milieus of modernised employees. At heart however, the two situations are fairly analogous.

Against this backdrop of normality, the decision to attend a higher occupational school is narrated as an *individual break-out*, directed against the milieu of origin and paralleled by dissociation from that milieu. The interviewees emphasise that the decision to go to the higher occupational school was their own. They highlight that they had neither been pushed nor been supported by their parents. In numerous cases it seems even to have been a decision against the parents, supported by milieus that were socially opposed to the parents' home. It is, for

instance, presented as decision encouraged by the occupational world, for example by teachers or elder engineers. An engineer puts his out-break in the following words:

Interviewee #18: I was the oldest of five children and that is why I had to go this way alone, I had no role-models. Not even in the environment, there was nobody who was an engineer or something like that. This was my own way. I just saw that I was good in math, geometry and drawing and I knew that I could make something out of this combination.

This excerpt, here used as a *simple*, but very *typical* piece of information, shows that for engineers and business economists from a modest social origin, the awakening is a kind of a double decision, beginning with a milieu-conform decision for an apprenticeship. This is then completed by an individual out-break against the parental milieu, towards the future and the unknown. By placing the emphasis on the personal and individual character of the second decision, the interviewees announce that this decision is linked to a dissociation from their parents' milieu.

Mechanisms of Awakening

The narratives of outbreak from normality can be condensed into three types. Some are inspired by extra-familial role models. Future engineers, for instance, serving their apprenticeship at small engineering businesses, tell that their ambition originated in the encounter with an independent engineer¹³¹ solving "*interesting problems*" by "*complex technology*". These role-models *inform* the apprentice about the possibilities, giving details about the atmosphere, the perspective or the concrete matters that are taught at the higher occupational school. They reduce the imagined social and intellectual distance to the figure of the engineer. In addition, "negative encounters" can contribute to the outbreak. Most commonly, the figure of the physically ravaged older craftsman functioning as cautionary tales or the figure of the "primitive" and "brute" colleagues¹³². The outbreak can thus become a strategy to avoid contact with these figures and in the long term to avoid becoming one of those figures.

¹³¹ The figure of the engineer is much more tangible and socially describable than the one of the "economists" – therefore the relevance of slightly elder role models is more important for the apprentice in the technical than in the commercial domain.

¹³² These are of course « working class figures » from which the nascent engineers and business economists wish clearly to distinguish themselves. Complaints about their "dirty talk" or their "primitive behaviour" are rather common among the interviewees and always function as a kind of indirect self-characterisation.

A second group of future engineers or business economists is encouraged by objective "evidences" attesting that they possess a certain "potential". These may be informally attributed competences like the recognition of a "*quick apprehension*" by a superior or more formal symbols, as "*good marks*" during the apprenticeship.

Interviewee #9: I thought that sooner or later I am going to do something, with an average of 5.7 (of 6) just working the whole year, dirty hands and all that, that is not very pleasant.

For this engineer, good marks during apprenticeship were delivered by an "objective institution" external to his immediate milieu and therefore, it seems, gave him the legitimisation to dream of something different from the "normal routine"; a routine, which in addition, he comes to perceive as increasingly unpleasant. Not all interviewees give the marks a decisive role and some even "dare" to have dreams with mediocre marks. However, it seems that those from a lower social background had been told that they had an "*ease for learning*", "*no problems at school*" or had been described as "*a good pupil*" as a kind of legitimisation - towards themselves but above all towards their social environment - to foster ambitions and dreams for the future.

Discontentment with the actual (and anticipated future) situation is the third argument dominating the subjective explanations of the awakening. The interviewees tell often a story about becoming aware that what they were doing was not actually what they wanted to do or what they dreamt of. It seems that temporally, this frustration is rather the result of a slow piling up than of a single event. It needs, however, to reach a certain threshold in order to influence the strategy of the individual. A business economist put it in the following terms:

Interviewee #22: About 5 years after the end of the apprenticeship I said: 'so, now I must do something, it cannot be that I am a simple commercial employee for the next 40 years, somewhere working and stagnating and somehow....just not going further'.

The excerpt illustrates that the frustration and the consequent strategy to enrol in a higher occupational school results from a comparison of the anticipated normal trajectory and the interviewee's personal expectations. Curiously, careers are presented as strategies to avoid a "dull" and "stagnating" future. Even more than by "dreams" or "plans", ambitions are fostered by "fears" and by "frustration" with the current and potential future situation.

All in all, it is hard to reconstruct the exact interplay among good marks, decisive encounters and/or the slow development of frustration. These mechanisms are a retrospective reconstruction of a slow and tentative process, including the friction among habitual dispositions, normative pressure from the milieu and the confrontation with “new realities” and “milieu-external influences”. The relevant point is the double decision. The first is a decision for conformity, taken accidentally and under the influence of the milieu. The second is a counter-reaction, perceived as an individual choice against the milieu.

7.4 Confirmation, Dissociation and New Bonds during the Moulting Phase

In the wake of the announcement of the wish to go further, the young apprentices put their plans and projects into practice. In the centre of this phase is thus attendance at a higher occupational school. It is the very symbolic and practical proof of the seriousness of the wish to climb. However, the temporal order of events is not so straightforward and the still shaky character of the decisions often makes it necessary to emphasise these plans: prior to the studies the career candidates performed a series of practical and symbolic rituals, which (1) confirmed their seriousness about their choice, (2) dissociated them from their original milieu and (3) pushed them to strengthen the bonds with other upward-oriented colleagues. As a result they slowly adopt a new social identity. I call this stage “the moulting phase”.

Symbols and Tests of Ambition and Aptitude

Once the social entourage is informed about the aspirations, the interviewees, as if they had to convince themselves or their environment that their decision was right and serious, acquire symbols reflecting their aptitude to pursue a career. Two possibilities are especially popular among the young career aspirants: going abroad for a language course and making a career in the Swiss armed forces.

Tourist or linguistic sojourns abroad are used to close “temporal holes” just before or immediately after the higher occupational school. As a latent function however, these sojourns can become a more palpable symbol of the ambitions, a first confirmation that the wish to attend the higher occupational school was not only an ephemeral idea of the adolescent mind. The trip abroad functions simultaneously as dissociation from the milieu of origin, as a confirmation of the determination and as a phase of learning. Some of the

interviewees describe it more as a self-discovery trip, others as proof of their independence, or as a strategy to gain some distance from their milieu and, not least, to “enjoy life” for the last time. Often this stay abroad is combined with a linguistic class, either in a French- or English-speaking context – some go even further and learn, for example, Japanese. These sojourns can also be a test of one’s independence or spirit of adventure. Since many interviewees travelled with a colleague or a new friend from the higher occupational school it is also an occasion to share the experience with someone with the same ambitions and potentially to validate these aspirations.

The Swiss Army is a second engagement allowing future engineers and business economists to fill the temporal holes and test their ambitions and aptitudes¹³³. Normally, they complete their basic training between apprenticeship and higher occupational schools and then attend further training sessions between their graduation and their first job. The compulsory character of army service makes also its formal openness, allowing everybody, independently of formal criteria, to climb the hierarchy. For the nascent engineers and business economists the army offers the possibility to test their capacities and aptitudes. Many join the training for corporal and consider their selection by army superiors as a confirmation of their aptitudes to lead other men and to take responsibility in large organisations. The army is therefore a very welcome and “objective” test which affirms their aspirations and corroborates the belief in their own capacities¹³⁴. As good marks during the apprenticeship, such a test – “objective”, because exterior to their milieu of origin – is welcomed by these young people in search of a new social identity.

¹³³ The Swiss Armed Forces are organised as popular Army that is compulsory for every male that cannot demonstrate his physical or psychological inability. The training is structured in a basic training at 19 or 20 years, followed by periodic “repetition courses” or in case of promotion by further training that normally directly follows the basic training

¹³⁴ In Switzerland when it comes to a discussion of the link between army and career, it is often mentioned that the army works as a social network and that these relational resources can be an advantage for occupational careers. Interestingly, the interviewees never mention this aspect and exclusively speak of the army as an opportunity to learn about leadership. I think that this reflects the decline of legitimacy of this kind of networking in recent years, but perhaps also the specific understanding of “merit” and “performance” of these groups, which has only little place for “personal links” and “networks” as a reason for promotion. As they want to present themselves to the interviewer as “meriting” and “performance-oriented” individuals, it is possible that even if they had had “army networks” that have helped them in their career, they would not necessarily have spoken it out. This would undermine the presentation of themselves they would like to present and potentially enter in contradiction with other aspects of their self-description. Unfortunately, I did not integrate the stages of the military career into the questionnaire. It would have been interesting to test to what degree military grades are still useful or necessary for successful careers – and also if this denial of army-related social capital corresponds to a certain reality.

The Higher Occupational School as Dissociation from Milieu of Origin

The central translation of ambition, however, is attendance at the higher occupational school. This education lasts three years for full-time students or four and a half years when students attend in the evening. For apprentices in the technical domain it is one option of obtaining further education, while for business economists it is just one - but the most promising - of several possibilities.

The narratives about higher occupational school are on the one hand characterised by labels such as “sweet student life”. The interviewees say that they “enjoyed” student life, that they had “a lot of freedom”, met “many new friends” or describe the period even as “the best time of my life”. On the other hand, they are characterised as a “hard time”, with a lot of repetition, hard work and complete social isolation. Particularly those who attended evening school describe it as a big sacrifice. Classes reduced their spare time to a strict minimum and separated them from their friends. Symbolically, the time at the higher occupational school entails the crossing of boundaries that are central to the occupational identity. This is most pronounced in the discourse of engineers: even if some of them made an apprenticeship as technical drawers and therefore already have been in the office, a good proportion learned a mechanical occupation. This meant to working outdoors or in the workshop using their hands and being exposed to the smell and the dirt. The return to school is therefore a crossing in direction of the “office”, of “mind-work” and of “clean, warm and comfortable work”. This crossing involves also a change of perception and of work categories intimately linked to the social and occupational identity:

Interviewee #9: I went three years to the Higher Technical School and the first year during holiday I went back to work on the lorries. And I have to say, I really got tired of it with this smell, because the lorries smell strongly of diesel and when it pours down your overalls then you smell. In the evening you have to change the overalls and you have to take a shower before you can look at yourself again. This was the moment when I had to say 'no, this cannot be it'.

This engineer, coming from a rural and handicraft background, distinguishes “mental work” from “physical work” and the fact that he explains very extensively (and also a bit clumsily) to the interviewer why he changed to “mental work” is perhaps an indication that this change was not so evident for him at the time and touched some deeper layers of his occupational and social identity. For the young business economist, attending higher commercial school also

involves crossing of boundaries and dissociating from colleagues at the workplace. However, those boundaries are less visible as the change from subordinate to autonomous or managing work is not accompanied by a change of the workplace or the tools used.

Many of the technical higher occupational schools were initiated by industrial enterprises and are therefore situated near industrial production sites. Thus the majority of these schools are still today located in middle-sized, regional centres as Martigny, Buchs, Rapperswil, Burgdorf or Yverdon. The economic higher occupational schools were founded in the neighbourhood of the growing service sector and have therefore a significantly more urban profile. Compared to universities, which are almost exclusively situated in the larger cities, the network of higher occupational school is more closely meshed and does not in any case necessitate a geographic separation of the family and the milieu. However, there are several examples of interviewees who had no school near their home. They experience the move away from their parents' home as dissociation in a double sense: as separation from the influence of the parents and from friends. In addition, as they do not know many people at the place where they have moved, they are forced to form new social relationships at school. Even if these new friends have the same social origin, they also have by the same ambition to leave their milieu of origin and together reinforce and accelerate the tendency to move to new social horizons.

The separation from the old friends seems to be a rather general experience. It is especially formative, however, for those who attend an evening school. In addition to symbolic and geographical dissociation from the milieu of origin, the time consuming schedules leave them virtually no time to see their old friends. An engineer explains the consequences for his social contacts as follows:

Interviewee #4: Yes, this changed dramatically, absolutely. It is very clear that I had a completely different circle of friends after my higher occupational school graduation. None of my former friends survived, I had strictly no contact any more. This means also that one has to build up a completely new circle of social relations during this time of higher occupational school.

In most of the cases, the new circle of friends, the new social networks are not just a coincidence. They are composed of other prospective engineers or business economists they meet in the higher occupational school. Structurally, these people come from the same milieu, but they are also inspired by a common wish to leave their milieu of origin. They spend a lot

of time with a new group of people, who share attitudes and have comparable plans, dreams and ambitions which are radically directed at the future:

Interviewee #13: At the higher commercial school there were many people who said "okay", who still had a kind of a hunger, who were curious. This has been very pleasant. There was nobody who said "uhh, we have too many exercises" or something like that, instead it was "okay, this is part of it, let's do it".

The excerpt, in which the interviewee is also eager to describe "his type", shows that meeting a group of people with the same dreams and attitudes can encourage the dynamic already in place. It reinforces the wish to go further and to dissociate oneself from those who do not have the same performance-oriented attitude. Classmates at the higher occupational school often become lifelong friends. It seems, that the passage through a common social and identity transformation lets them develop very similar ways of thinking and acting that make them see themselves as "brothers in arms" for a longer period.

To sum up, during the moult phase the future engineers and business economists stabilise and confirm their wish to go further. They rely on informal or institutional possibilities such as linguistic sojourns or military service. The most important confirmation of their seriousness is attending the higher occupational school. Besides the acquisition of knowledge and a formal title, it allows the individual to break from his milieu of origin and to recreate a social life which is centred on the performance and the will to go further. Temporally this phase is organised around the 3 or 4 years at the higher occupational school. However, neither the precise temporal order nor the total duration of the moult phase has a decisive influence of the further course of the career. The phase seems not to differ according to types or cohorts.

7.5 Trial Phase and the Search for a Career Anchor

The "trial phase" begins with the first job after graduation and ends when an "appropriate" or "convenient" post has been found, one which either fits the interviewee's expectations or is considered as the satisfactory beginning of a channel of ascension. Therefore the trial phase does not begin immediately upon graduation. Nevertheless, the "real occupational life" can rarely be postponed for more than 6 months. This would be contrary to an immediate exploitation of educational credentials, which seems still to be quite important for the interviewees. In addition, thanks to their occupational experience and the closeness of their

education to the occupational life, graduates of higher occupational schools (in contrast to certain university disciplines) are rarely confronted with youth unemployment¹³⁵.

The moves in this phase follow a trial-and-error logic. This is partly due to the prior social trajectory of engineers and business economists: because they have broken out of their milieu and only rarely have role-models who could guide them through the job offers and the exact social meanings of positions, they often take a job which vaguely interests them and “test” if it corresponds to what they wanted and expected. With luck, this objective can be achieved right from the start— otherwise, it can become a relatively long and arduous course with frequent changes of firms and jobs. Subjectively, even though the interviewees do not use the term “trial phase”, they clearly separate it from the following stage and a large majority has a quite precise idea about that when it ends. In practice though, the concrete nature of that “sign” can vary quite widely and has to be understood in its long-term-perspective: it can be the foundation of a business, it can be the change to a branch that will become the “occupational home” for a long period or it can be the acceptance of a function or a job that promises some long-term security. In all these cases, the individuals think that they have completed a period of searching and have arrived at a place where they want to remain.

Finding One’s Career Anchor

The trial phase is a period of developing, modifying and differentiating the social and occupational identity by confrontation with jobs and positions that correspond more or less to the biographical projects of the individuals. This search process is useful to the individuals as it allows them to test their interests, to discover their strengths and shortcomings and to acquire a clearer vision of what they really want. Even if in the trial-phase certain adventures are still possible, it is characterised by chronological structures that “force” the individuals to make their first choices for their future trajectory. The position and identity they have found at the end of this process will largely determine their trajectory during the central ascension and consolidation phases.

The occupational identity career candidates are looking for, resembles what Schein has called “career anchors”. This anchors result “from an interaction between the person with his needs and talents and the work environment with its opportunities and constraints” (Schein, 1977: 52). He adds that “career is anchored in a set of needs and motives which the career occupant

¹³⁵ See also the statistical results in the chapter on the social structure of careers.

is attempting to fulfil through the work he does and the rewards he obtains for that work – money, prestige, organisational membership, challenging work, freedom etc.” (Schein, 1977: 52). Schein distinguishes “managerial competence”, “technical-functional competence”, “security”, “creativity” and “autonomy and independence”. These anchors are certainly among the basic motives of many upwardly oriented young men, present in the early phases of awakening or developed during the trial phase. As emerging career scripts, they are the reflections of more fundamental biographical dispositions and their confrontation with the occupational world. Once this anchor found – which is in a way the implicit objective of the trial phase – it does no longer change radically and if so only under the influence of radical structural changes challenging an existing anchor. The qualitative interviews show that the anchors relevant to engineers and business economists in Switzerland differ in some points of the typology found by Schein. They can be conceptualised as emerging from a series of decisions.

Large-Scale versus Small Company

A first decision engineers and business economist take at the beginning of their trial phase concerns the choice between large-scale companies and small firms. In the following words an older engineer explained how the interaction of his needs and the structures of his work environment showed him that he was a “small-business-guy”:

Interviewee #4: Following this job at the planning office, I joined Firm X [a big firm in the mechanical sector] for one year, construction and calculation of high-voltage transformers. I wanted to know the industrial side after my studies. But then I just had to note that I am not the "small-business-type", I am just more the "handicraft-type". After one year at Firm X I changed again, but at this moment I had very precise ideas about what I wanted.

For the interviewee, “industry” and “small-business” are two fundamental occupational categories. He attaches to them not only certain production processes, but thinks that the people who work in one or the other domain distinguish themselves in terms of personality. The excerpt illustrates how the career candidates test different jobs and positions by trial-and-error¹³⁶. Having done his apprenticeship in a universe of small firms, he wanted to experience the "industrial side" following his graduation, not the least because he believed that careers are more promising. Confronted with the organisation of work in a large-scale firm, he then

¹³⁶ In trial and error, one selects a possible job, tests if it suits to one’s wishes, and if not, tries another job. The process ends when a job proves satisfactory to the engineer or the business economist.

had the impression that his “personality” did not correspond well to this industrial world. The division between the world of large-scale and small firms for him became a key to his identity, to the world of handicrafts, and finally became the anchor of his further career development.

Typically, the world of the small and independent businesses fascinates many engineers and business economists because the individual has a great influence, the creation of value is very specific and practical and it is also an escape from the formalism, bureaucracy and immobility of large-scale firms. In contrast, firms offer "a large number of career opportunities", so the interviewees think that they are more interested in a continual education and development of their employees and that they offer also a better security in the long term. As these two types of firms are often conceptualised as opposed, it is not astonishing that once one of them is chosen, there are few subsequent changes.

Functional Competence versus Management

An overwhelming majority of young engineers start out their work life either in a development unit of Swiss industry or as planners in a small engineering bureau. In their discourse they refer to this entry as “*classic*” or “*normal*” – as a stage through which every engineer has to pass. Then, very quickly the questions arise, if the young engineer perceives himself as a technical “handyman¹³⁷” or if he is only interested in technology in combination with further managerial tasks. In the first case, technical-functional competence quickly becomes the career anchor, from which point, with "logical steps", the engineers may become managers of a small team or quality managers. Often this match between the structural entry portal and the identification as handyman results in a very short and linear trial phase.

In the second case, when the engineer realises that his ambitions do not correspond to the offers of the entry-portal, he has to look for alternatives, not always clearly defined. This leads often to an extended and complicated trial phase, as further identity decisions have to be taken. Within the industrial sector, this kind of anchor can, for example, lead to a career in human resources, in marketing, in sales or finally in general management (including an hierarchical ascension)¹³⁸. The further away these steps lead from the technical core-domain

¹³⁷ These engineers call themselves as “Bastler” or in French as “bricoleur”.

¹³⁸ Even steps in the general management rarely lead engineers outside the technical domain – by contrast to economists the « generality » of engineering-rooted general managers is always constraint insofar as they are bound to technical domains.

are often appraised as “*risky*” by engineers. Engineers conceive of the chronological order between technical and managerial tasks as irreversible. Independently of the question if this is really true¹³⁹, the imagined irreversibility of the jump between technical and managerial work is the career decision of all engineers with far-reaching implications for social identity. While the identity situation is relatively unproblematic for the handymen, abandoning engineering for management tasks sometimes involves quite profound adaptations of identity.

Avoiding Drowning in Specialisation

The challenge for business economists is different in the trial phase. The variety of potential entry-level jobs is considerably larger, since firms offer jobs as specialists accounting, marketing or sales. Other typical entry-positions include jobs in an audit- and accounting firms, business, traineeships in larger firms or jobs as assistant to a unit or firm-director. If the choice is more diversified, it is also more tricky and serious. All of these beginning positions include a specific potential and expectation for the future career. Apart from those who quickly become specialists in “marketing” or “accounting” with a technical-functional anchor comparable to technical engineers, most of the young business economists are motivated by managerial competence and try to remain “generalists”. Their trial phase is characterised by the wish to avoid a too early and too deep specialisation, suspected to become an obstacle to a future hierarchical ascension¹⁴⁰. This desire to avoid specialisation consequently shapes and gives rhythm to the trial phase of business economists.

Job-rotation, as it is typical for the trial phase, is thus not only the result of identity searching, but is also driven by the wish to become acquainted with a large number of tasks and domains. This is a way of avoiding specialisation and provides an experience which in their eyes sharpen their aptitude for general management tasks and broadens the variety of management positions they are capable of occupying. Whereas entry-jobs linked to a traineeship or as assistant to the director are explicitly designed as opportunities to give a broad insight into the enterprise, specialised jobs in accounting, marketing or human

¹³⁹ As I will show, it is possible and even a socially legitimate step, but only at the cooling out stage (i.e. as a kind of a first transition to retirement).

¹⁴⁰ It is probably no coincidence that several of these « specialisation » which are regarded as dangerous for the further course of career – such as marketing or human resource management – are numerically dominated by women and also considered as « female » know-how and so called « soft-skills », including female abilities as « creativity », « intuition » or « empathy ». Typically such female positions are subordinated to male functions and by contrast have no “career potential” inscribed to them (Heintz et al., 1991). It remains open if the maleness of the achievement career is also about avoiding to drown in “female specialisation” which offer only few pathways to the top.

resources are considered as risky because they always include the possibility of “drowning” in a certain specialisation. Nevertheless, there are differences between the disciplines marking-off accounting (and neighbouring specialisations) from the other disciplines. As contemporary management methods consist mainly of accounting-based techniques of control and decision-making (Power, 1997), basics in accounting are considered to be indispensable for general management tasks and a position in accounting as an ideal springboard for hierarchical upper position – as long as it does not become too technical.

In a nutshell, the trial phase covers the period between graduation and the acceptance of a job suiting the ambitions and expectations of the career candidates. This period is characterised by a relatively great number of changes, which are due to the search for an adequate career anchor. Depending on their discipline and the entry-portals of the corresponding economic field they have to make choices between large and small firms, between technical-competence and management and between generalisation and specialisation. Even if it is difficult to distinguish among several cohorts based on this qualitative material (see chapter 7.2), it is possible that the trial phase has slightly changed its signification in the last decades: some accounts suggest that whereas for the older cohorts, in the *trente glorieuses*, this trial-and-error procedure was really a light-hearted “game” where errors could easily have been corrected, it seems to be – at least subjectively – more serious for younger generation. No “errors” are allowed and some of the job-rotations during this trial-phase are probably not real trials but (more or less open/ hidden) lay-offs with which also younger engineers and business economists are sometimes confronted. In order to understand these changes, however, it would be necessary to examine more thoroughly the trial-phase of younger career candidates and to compare them to the narratives of older engineer and business economists.

7.6 Ascension and Consolidation

The idea to settle down once in a certain job or a certain company, already common at the time of emergence of achievement career (König et al., 1985), is still rather deeply anchored in the minds of engineers and business economists. Most of the interviewees spoke of a moment when – after the years of search of the trial phase – they progressively “know better what they want” or have “a clear conception of what they want”.

This new phase, which I shall call “ascension and consolidation”, begins at the moment when the engineers or business economists have the impression that they are through with "applying the things learned in school" and "playing around". The “sign” for the beginning of the new phase is given, when they come to recognise a position as corresponding to their dreams of the future. In other terms, it has to be a job whose promises for the future – the career prospects that are typically attached to it – correspond to the conception of the individual about his occupational future. In most of the cases, it is a matter of a channel which allows a regular hierarchical rise, a “logical” succession of interesting tasks or a long-term independence. Sometimes this kind of “imagined springboard” is a firm (for example a bank promising an internal career), sometimes it is a function (accounting as a skill and passion supposed to smooth the way to the top) and sometimes it is a branch (for example the watch-industry which can create a strong emotional attachment among career candidate). Often the full potential is only recognised after months or years spent in this job or firm. It is therefore not categorically a conscious decision to enter into ascension phase – rather people express the wish to settle down and then, after a certain time a job or a firm seems to fulfil their expectations. At this moment, few of the interviewees has a precise “career plan” or at least none of them dared mention it to the interviewer¹⁴¹. People think, however frequently, that somebody who wants to make a career should “always be ready”, “show his ambitions” and “seize the opportunities”.

The duration of the ascension phase depends on how long the actors estimate it as realistic that they would still move higher in the near future and therefore it be worth to continue to strive. For very successful individuals the ascension phase can last a rather long time, even until retirement. Others enter a kind of consolidation phase: this is the stage when they are no longer looking for a career change in their, or at least not a change that would aggrandise their power, prestige or income. At the same time they seek to stay in charge and to continue assuming operational responsibilities. The consolidation phase differs from the *cooling out phase* which implies an explicit change of status and functions as a transition to the retirement.

¹⁴¹ In their book on the French « cadre » Bouffartigue and Gadéa study young engineers, who shortly after graduation indicate in large proportion that they aspire for a trajectories resembling to the careers of the most successful economic leaders (Bouffartigue & Gadéa, 2000). Comparing these statements with their – rather low – statistical chances to make such an occupational way, they conclude that this clash between “aspirations” and “reality” inevitably must provoke major frustration and psychological troubles. This is a typical example of a biography-unaware analysis. In fact, as I have shown large parts of the occupational identity, including the way one wants to make is constantly adapting across biography. This process of adaptation is sometimes particularly turbulent during the trial phase and as a consequence precise career objectives become increasingly vague and intimate.

Development during the Ascension: Ladder or Carousel?

The most common type of ascension is climbing the steps of the organisational ladder. This often involves showing one's interest in a move, by announcing one's ambition in everyday work or towards one's superior, observing the internal labour market and the organisational dynamics and seizing the opportunities that are offered. Hierarchical ladders consist often of several formal runs. The formal hierarchy for example, is overlaid by one or several informal hierarchies whose structures hinge on their international character. The more "international" a position is, the higher it ranks in the formal hierarchy. A pathway across a series of hierarchically ordered positions, if possible in an accelerated rhythm, is for the interviewees strongly linked to culturally defined success. Such a successful business economist narrates his ascension phase as follows, in order to illustrate to the interviewer what he means by a "successful career" by his own example:

Interviewee #15: I shall enumerate. During one day I was a branch-controller, then regional controller of north-western Switzerland, then I was system-manager, then I took the function "controlling operation", Business Area Operations, then "controlling overseas", then "controlling Europe", then "controlling wealth management international", then "controlling global wealth management and business-banking" and this is in a way the highest controlling-function, if you look at this pathway in these 10 years, it is actually a classical way within the function of Chief Financial Officer in Controlling. Really a logical development and today in this position I am responsible for 300 controllers worldwide at 23 different locations.

He considers his own ascension phase as very "successful", "logical", "clean" and sometimes even "perfect". It can therefore serve as a kind of an ideal, in order to demonstrate the characteristics of the ascension phase: it follows a rather quick rhythm, it is composed of linear and incremental upwards moves. Besides such very successful hierarchical ascension, the average pathway is slower, has fewer positions and may also be coupled with alternative informal criteria.

It seems that in certain, numerically fewer cases people rise vertically by remaining formally in the same job. In other words, their job profile undergoes major changes which completely modify its status and finally lead to an alternative way of upwards movement. The following excerpt reflects such a movement:

Interviewee #13: The technical controlling-tasks have become smaller, IT-tasks have grown and currently I am entirely into IT. There have been two or three conscious decision from my career-

perspective, do I want to remain here knowing that the unity drives away? Or do I want to step out of here, for example into controlling? No, so let's stay with IT. I sit in a way on the same seat, but the work drives by and is constantly modifying.

It seems that especially in very dynamic and growing sectors – in the 1990s, for example, the telecommunication sector or the catering sector – people are transported with their jobs to the top, instead of moving upwardly through a sequence of vertically ordered jobs. The same is true for firms with regular and deep-going reorganisations: during these processes people do often not aspire formally or informally for a job on a next higher level of a static organisational pyramid. Instead, their job profiles changes dynamically; functions which recently still have been of minor importance, acquire a new relevance due to a new general alignment of the organisation. It could be argued that even though these “moves by remaining in the same position” correspond to a certain vertical ascension in the firm, they are not in the same way as ascensions by ladder part of an individual career-project. The career candidate does not have to strive individually and pursue his goal by strategic decisions concerning his education and his moves in the firm. However, the accounts of the interviewees suggest that in order to “catch” or to “remain” in the job that leads structurally to the top, the individual has to be in the right place at the right time. In this sense, ascension by carousel can still be considered a form of a career-project, even though the strategies differ from the ones employed in “ascension by ladder”. At the same time this kind of movement concerned only a small number of interviewees (#5 in the telecommunication sector; #10 in the catering business; #13 in the insurance sector) and it is a phenomenon I had not expected – it was not part of my sensitising concepts. In this sense, I only very cautiously propose that there could be “alternative” ways of climbing. It is also possible that this kind of ascension is more common among younger cohorts. If this is the case, it would be a sign of a serious transformation of career mechanisms that could be examined by qualitative data. Even though the three cases are all between 35 and 45 years old, it is difficult to say if it is really a generational phenomenon. Other young business economists still narrate their ascension in terms of climbing traditional career ladders – however it is possible that career carousels come to complete the mechanisms of career for younger careers, while they are not at all known among older cohorts. In any case, more focused research should be aimed at this kind of carousel-shaped ascensions: this should include particularly dynamic, international firms in the service sector and examine how the younger cohorts of still hungry business economists perceive their career ascension.

Within or Between the Firms

I have shown that certain trajectory-types are statistically loyal to one firm, while others are characterised by numerous shifts. The qualitative accounts sheds now further light on loyalty by comparing “organisation-bound” trajectories with “organisation independent” trajectories. Subjectively, the difference between the two types of ascension is important and highly formative for identities; they are a recurrent topic in most of the interviews.

Loyalty, statistically simply measured as the time an individual remains with the same firm, can subjectively have various meanings. In the ascension-phase of the Financial-Banking Career for instance, business economists remain with the company because it offers an entire program of support and backing. To remain loyal is in their view a “rational” opportunity to pursue a career with a large number of internal possibilities and support for further qualification. It is a slightly paradoxically individualistic or selfish form of loyalty. In these firms, typically every 18 months (and later in a slowed-down rhythm) promising career candidates are offered new jobs or given opportunities to climb to the next hierarchical level. Even if this firm-steered and seemingly well organised career rhythm during ascension phase is regular and foreseeable, it is rarely a rotation leading systematically across all unities¹⁴². According to the interviewees, rather than to obtain an overall comprehension of the enterprise or to serve as a link between different departments, these regular and rather quick moves are thought to instruct the career aspirants and may also serve as a means of evaluating their further potential.

By contrast, the loyalty of technical-industrial engineers is due to the passion for a specific issue and the long term perspective that they consider to develop and improve a product by research. Their notion of loyalty implies the belief in progress through technical improvements and the commitment to the firm as a community. Therefore, in large-scale industrial firms the rhythm structuring careers corresponds to the production cycle of a “the project”. Changes within the firm are changes between projects. Climbing vertically usually

¹⁴² As it is demonstrated by studies on « national career models » on the pathways top managers (meaning CEO's and members of the Board of Directors of stock corporations) in the Swiss model “identification of potential occurs in a transversal way during a stage which is perceived as educational stage in different functions of the firm (generally during the dual occupational education but also during the first years of occupational experience of young university graduates)” (Davoine, 2005: 90). This is largely confirmed by my data – typically engineers and foremost economists learn to know the different functions by a position as “assistant to the director” or as trainee. Once entered in the ascension phase they hardly ever change their function for fun – it is possible however that they are forced to change because their imagined pathway to the top appeared to be a blind alley.

means becoming a project-manager. The career rhythm of technical-industrial engineers is thus directly dependent on the rhythm of product development, lasting an average of about 3 to 5 years. This is the reason why the rhythms of technical careers are rather slow and at the same time irregular – their logic does not correspond to a continual assessment of the candidate.

Pathways that systematically cross firm or branch-boundaries can be defined as disloyal ascensions. Individuals pursuing such pathways are not climbing under the protecting and guiding shield of an organisation. It appears that in most of the cases they are characterised by high-flying and lofty ambitions and a relatively large number of firm-shifts, often across different types of firms and branches and an early attainment of positions of upper management in small or middle-scale firms (often also in expanding sectors where a quick rise is more easy than in consolidated structures). As a consequence their careers are rather irregular, but quick, impatient and aggressive across firms. This rhythm is less governed by the firm, but based on individual decisions¹⁴³. It seems that the individualistic and aggressive upwards striving in those cases is often cyclically reinforced by the structurally very individualistic pathway and the constant impression of self-responsibility and self-reliance.

Consolidation

In most of the cases the rhythm of ascension flattens with time. Except for a few rare cases that still move to higher positions after 40 - 45 years, the ascension phase leads slowly to a "consolidation phase". The moment of transition between the two is symbolised by the striving for upwards moves fading away or by giving (more) place to alternative types of strivings and to other career-anchors.

This moment of transition is not "naturally linked" to a certain age, but is mainly determined by the subjective evaluation of chances to move to higher positions. Several of the interviewees seem to be between ascension and consolidation. They still claim to have upwards ambitions, but sometimes also indicate that they are not sure if these ambitions will actually be fulfilled. This means that the transition from the ascension phase to the consolidation phase is a process of adaptation of ambitions to the "reality" of opportunity structures. Promotion and striving, however, are based on hope. Like the donkey lured by the

¹⁴³ Of course these trajectories too are determined by the structures of the labour market and the organisations that compose it, but they are not the result of a conscious planning of the human resource department.

carrot dangled in front of his nose, the moment when individual can admit to himself that the upwards movement is completed always lags behind the structural closing of opportunities. Several business economists between 35 and 40 said that they were still looking for upwards opportunities. At the same time, at other moments they seem to realise that they have become "too specialised" and are no longer on an ascendant pathway. Therefore, the transition between ascension and consolidation is rather slow and fluid, because engineers and business economists take time to "realise" that they are no longer moving upwards or that they struggle to admit to themselves that their ascension phase has been completed.

Typically, upwards striving does not simply fade away or be replaced by disillusionment. More frequent is a replacement of an upwards striving by another type of striving, for example a turn towards a more functional career anchor. Especially for business economists a flattening of ascendant career changes is often paralleled by an abandonment of generalist ambitions and a turn towards specialisation. At the end of the consolidation phase, by a cautious and soft transformation of the job-profile, it can be converted into a cooling-out phase.

As a consequence of the structure of my sample, which includes both younger and older cohorts, I have two problems in analysing the consolidation. On the one hand, I do not know how the careers of the younger engineers and business economists will develop in the years to come. The transition between ascension and consolidation might differ for these cohorts in the next decades. On the other hand, the analysis of the consolidation phase is based on a relatively thin data base and does not enable me to make systematic comparisons. Not enough members of the sample have reached this phase, so I cannot draw richer and better-founded conclusions.

7.7 The Cooling Out-Phase as Smooth Transition to Retirement

By the concept of *cooling-out stage* I allude, in a loose association with Goffman's concept (1952), to the moment from which business economists and engineers prepare the transition to retirement. It starts when people "want to step back" and usually lasts until retirement. Such a cooling-out is normatively built-in in the engineer's and business economist's career schemes and is at the same time an integral part of a firm's career-policies. Therefore in most of the cases, this moment "naturally" relies on a mutual agreement between the employee and the

firm. For the cooling out, the engineer or business economist is exempted from the former duties and responsibilities, as a reward for the years of loyal service to the firm. As a last counter-service he paternally puts his knowledge and know-how at the disposal of the firm, mainly by counselling, coaching or teaching the younger staff. As mentioned in the introductory methodological section of this chapter, it is not possible to reconstruct this career phase for members of the younger generation, simply because they have not yet experienced it. It has to remain open if they will have such a career end (or a variant of it) in the future.

Temporal Structure of the Cooling Out

Biographically, the cooling out-phase can begin anywhere between 50 and the legal retirement age of 65. The interviewees suggest that the moment at which it is legitimate to step back is part of a culturally shared career-model. At the same time the transition is not clearly and formally bound to a specific age; it just has to occur within a certain age bracket. The closer it is to the legal age of retirement the more legitimate it seems to be. Even though certain career moves at the age of 50 can principally also be declared as a kind of a cooling out, the narrative effort to present it as such are quite considerable.

At a certain moment of their career, most of the interviewees look at their trajectory through the lenses of the approaching retirement and declare that they no longer wish to leave the firm or the job. Therefore, in most of the cases, entering the cooling-out phase corresponds to a last, internal job-shift. During the cooling-out phase, rarely does an engineer or business economist move further, except against his or her will. However, not everyone pursuing an achievement career passes through a cooling-out phase. On the one hand, very successful managers – who still think they have the potential to go further – may prolong their ascension phase until very shortly before retirement. On the other hand, especially in middle-size or smaller firms, it is quite common for people to stay in command until their retirement without stepping back or changing status. This extended consolidation phase has to be distinguished from cooling out, in some cases though it is difficult to determine the limits between the two.

Reasons for the Cooling Out

The beginning of the cooling out phase is either ringed in by an event – such as an intended or unintended job-shift – or floats up by a transformation of an existing position. The idea that towards the end of an occupational career one drops out of the upward career dynamic seems to be part of a collective conception of the transition to retirement. Therefore cooling out is

part of a normal career. It corresponds to a modification of the actors' state of mind. Several of the older business economists and engineers who were interviewed mentioned a kind of a turning point late in their career, when they decided to "stop the race", "to bring it to a good end" and to "enjoy" the rest of their occupational life. At the same time, this voluntary pre-retirement, often implicitly or explicitly negotiated with the firm, corresponds to a change of status. In their new role people become "internal consultants", teach or retire to a very specific, for example technical, domain. A similar kind of voluntary and collectively well supported cooling out is unknown by the owners of small firms. One of their main preoccupations of the autumn of their career is the "transmission question". In fact, retirement for them does not only signify the cessation of working, but also involves the question if their lifework will be carried on, by whom, and how well. Therefore, they typically look for a successor some years before the term of their career and reduce their responsibilities or tasks by simultaneously grooming the successor. This can occur in the form of a formal participation as partner but also in the form of a gradual handing over of clients.

Some of the interviewees have neither a plan to nor chose to drop out from the ascension and consolidation-phase. It seems that with the restructurings in the 1990s older employees were frequently forced to change their jobs. Most often this includes hierarchical downgrading, but at the same time seems to be a way to avoid putting hardworking employees on the street. These events were in most cases unforeseen by the individuals concerned and clashed with their plans and intentions. A typical case is when a team-leading engineer is deprived of his formal powers and responsibilities and is assigned to some minor, purely technical tasks in the research department. Even though such disempowerment can cause discontent and bitterness the person often seizes the cooling-out as a cultural pattern in order to handle the new situation and to integrate the climbing-down into a narrative of a "descent" and "normal" occupational trajectory.

The New Contract

The people in the cooling-out are in part exempted from the usual performance expectation and enjoy a certain amount of protection and freedom. At the same time, they are assigned tasks which enable the firm to profit from their considerable knowledge and know-how. Typically these tasks involve transmitting knowledge, for example by putting one's knowledge at the disposal of a specific group within the firm (often people at the beginning of their career): examples for this firm-internal generational contract are the 62-year old engineer

in a large construction-company who now spends his time on showing entering engineers “what it is like to direct a huge building-site” or the director of a human resource department in a big bank who now specialises for the remaining years in the education and tutelage of so-called “high-potentials”. The firm can benefit from the large knowledge, acquired by the individual in the course of long years of loyal service. It not only needs somebody with a comprehensive knowledge, but somebody occupying an “outside position inside the firm”: an older engineer who is now a mediator among different persons, groups or department of the enterprise can, for example, only play his role because he stepped back from his career ambitions and can now serve the enterprise as a “non-interested” arbiter.

Because the younger engineers and business economists have not yet reached this career phase, it is not possible to say, if this kind of cooling out has survived the recent restructurings or if it has been transformed or even disappeared with other mechanisms of the traditional achievement career. It is also important to consider these results carefully: they are based on only a few cases of people who have approached retirement or are already retired. Therefore it is possible that other forms of transition to retirement exist, which are not covered by the cases at my disposal.

7.8 Conclusions

To sum up, engineers and economists subjectively divide the achievement career into five phases: awakening, the moult-phase, the trial-phase, ascension and consolidation and the cooling out-phase. The wish to rise socially by making a career appears during apprenticeship and is considered by the engineers and economist as an individual break-out against the normality of their milieu of origin. This out-break has then to be confirmed by a series of tests of sincerity and the relative dissociation from the milieu of origin by the attendance of the higher occupational school. This dissociation is accompanied by the creation of a new circle of friends with the same ambitions. The following trial phase is dedicated to a search for a career anchor mirroring the expectations of the career candidates. Because this search follows a trial-and-error logic and because the structure of the entry portals can vary widely, its temporal rhythm and its duration differ considerably.

Once settled into the position, the branch or the firm promising the appropriate future, the engineers and economists climb in this phase of ascension either by moving up the

organisational ladders or by transforming their job profile. The accounts of the interviewees allow further distinguishing among an individually loyal ascension, a collectively loyal ascension and a disloyal ascension across firms. At the moment when the careerists do no longer judge realistic further upward career moves, they begin to consolidate the position attained and direct their striving at alternative goals, such as functional competence. The transition between ascension and consolidation can be long and painful and is often only accepted with a little temporal distance. From about the age of 50, engineers and economists use the possibility to cool-out, which is a transition to retirement deeply anchored in the cultural models of career. This phase corresponds to the establishment of a new contract between the employee and the firm, whereby the first is discharged from the usual pressure and the second can as a counter move profit from the experience of the long term employee.

These five phases can be clearly identified on the basis of the biographical interviews. However, since they do not always have clear-cut temporal delimitations, vague transitions between the phases are the rule. The awakening, for example, does not begin with one clearly identifiable event. It is an ambition which emerges slowly, first manifested as flirtation with high-school or specially modern apprenticeships, then as a clear wish which first has to be verbalised and then has to be announced to the immediate social milieu. The beginning of the ascension phase is at first sight not recognisable as such by the ones who are experiencing it. Often it becomes only clear after a certain time that a specific move has been the entry to the ascension, while at the moment when it occurs, it could easily have been another, non-significant step of the trial phase. Another type of phase is simply separated by rather fluid temporal boundaries. The transition from ascension to consolidation, for example, is by definition slow, corresponding to a continual transformation of striving, which is not often characterised by precise events. Still others are temporally clearly circumscribed; for example because they correspond to a formal event such as the attendance of higher occupational school or the modification of the labour contract.

It is therefore obvious that the six objective types of careers do not only differ according to their sequences of positions, functions, branches and firms. Each type of career potentially produces a specific individual conception of the trajectory. However, the early phases and their individual interpretations do not really give any hint as to the further course of career. In other words, the awakening and moult phases do not differ for the members of the six clusters of objective achievement careers. It seems that the types only begin to differentiate

themselves, from the trial phase on. However, members of all types of objective career conceptualise their trajectory with about the same phase-categories. According to the types, these phases are of different duration, they are rhymed differentially and not all types move through all the phases.

Because not all cohorts have yet passed through all the phases, only the early career phases can be compared. It appears that the career phases and their order have not fundamentally changed according to cohorts. In addition, younger engineers and economists are moving through awakening, moult-phase, trial-phase and ascension phase. The individual interpretation of career is still based on the same cultural model, as in the heyday of the "*trente glorieuses*". Two changes may have occurred in the meantime. It is possible that the duration of the phases differs between older and younger cohorts. It is, for instance, possible that the trial-phase lasts longer for the younger generation, than for the cohort born before 1955. The qualitative data, however, offers no precise indication on the length of these periods. In addition, as they often have no clear-cut beginning and ending it would generally be difficult to make assumptions on the duration of career phases according to cohorts. Second, it is possible that the biographical functions of certain phases have changed according to the cohorts. In particular, the trial phase and the cooling-out phase may have slightly changed in signification in the last decades - without really changing in terms of temporal logic and shape. It is, for example, possible that the trial and error logic of the trial-phase, which for older cohorts mainly served to find an acceptable career anchor, has become for younger generation an occasion to "hide" difficulties to find a successful career portal. In fact, it is not always clear if the frequent and sometimes abrupt changes during trial phase are voluntary choices in order to find a convenient job or a stable career anchor or if these changes are resulting from forced changes and dismissals. Probably, it is a combination of the two. Some interviews, however, raise the question if sometimes forced changes between firms and branches are not "masked" by the interviewees as "normal" part of the trial phase. Quite a comparable mechanism is also observable for the cooling-out phase: it seems that in some older engineers who were downgraded or dismissed some years before retirement, "use" the cooling-out phase as a legitimate cultural pattern. They are successful in discursively transforming their forced change of status into a *culturally acceptable change of status*. In this perspective, a downgrading simply becomes a "step back" comparable to a change of status which is achieved by a mutual agreement between the firm and the employee.

Subjective careers allow me to refine and nuance the outcomes of the quantitative analysis. The optimal matching analysis indicates a change according to cohorts, while the qualitative results show rather a stable situation. This is, on the one hand, certainly due to the more precise character of the quantitative measurement, which allows reflection of already minor changes. On the other hand, it is also possible, that the lack of generation-specific differences in the subjective careers indicates that the cultural patterns of career interpretation change more slowly than the career structures themselves. While the loyalty of career has significantly decreased, the people pursuing a career are still thinking of career in traditional terms.

8. Biographical Representations¹⁴⁴

8.1 Introduction

I argue in the theoretical model, that individual career representations are at the same time the product of specific social trajectories and conditions of the subsequent course of these same biographical pathways. I have shown that "biographical scheme" and "biographical habitus" are two different conceptualisations of the temporal order in this process of production and transformation. The first states a continual and open interplay between structures and representation. At each moment of the career the biographical schemes are the result of the whole prior trajectories and become an important factor of the subsequent trajectories. The theory of biographical habitus postulates that the period of primary socialisation is comparatively more important than the events and phases of the later trajectory. The generative schemes acquired in the childhood remain relatively stable over the life course, produce, however, in confrontation with changing social structures, new ways of thinking and acting among the actors

In this chapter, I describe the individual representations and show how they develop in the course of biography. Are the representations the same throughout career or do they undergo major transformations? Do all representations follow a common pattern of stability or transformation or can I distinguish those that behave as biographical schemes from those that operate as biographical habitus? If I can observe such a difference, what would be the factors that distinguish the two types of biographical representations? At the same time, I also seek to differentiate the representations according to disciplines and types.

To respond to these questions, I first describe the data and method I have used and then take up the sensitising concepts I defined in chapter 2 and confront them with the qualitative material. These include the striving, the belief in progress and future, the relationship to time, the belief in meritocracy and the work orientation.

¹⁴⁴ According to chapter 2, the term "biographical representation" is here used as a generic term for biographical scripts and biographical habitus – that I divide into representation of progress, conception of time, representation of meritocracy and representation about work and family. With "account" I refer to the narratives – the interview excerpts – of the interviewees.

8.2 Data and Method

Data and Sample

As in the chapter before, the material in this chapter stems exclusively from the qualitative sub-sample of 30 engineers and business economists. For details about the sample and potential problems and biases, please refer to the explanations in the methodological chapter 4 or/and the chapter 7.2.

Analytical Strategy

In this chapter, the subjective representations that accompany careers and their development over the career. Therefore I use here some of the strategies that were developed by Strauss and Corbin (1990) in their writings on grounded theory¹⁴⁵. Grounded theory strategies of analysis are relatively open with respect to the central categories and the status that is given to the discourse of the interviewees. The words of the interviewees can be interpreted as reflections of deeper cultural categories (as expressed by the narrative structures), as for example, analysis of “Deutungsmuster” in the tradition of Oevermann (2002) or the categorical-analytical approach of Demazière and Dubar (2004). In this approach the researcher focuses on the narrative patterns, the underlying categories and their syntactical sequences. On the other hand, the discourse can also be used as direct information on the social world, as for example in the so-called restitutive approach of Demazière and Dubar (2004). Here, the “story” or the content of the narrative is interest for the researcher. The information that the interviewee gives to the researcher is taken as his subjective description of the social reality¹⁴⁶. In the present study I combine the two approaches. I am interested in the description and the proper “theories” of the interviewees’ goals or their ideas of progress. This allows me to understand their daily life by a relatively explicit type of subjective information. At the same time I am also asking what kind of deeper cultural categories of thinking these descriptions contain; for example I want to know what cultural ideas of “time” or of “success” are transported when interviewees talk about their work and life.

¹⁴⁵ As already mentioned in chapter 4, the sampling and analysing is not so closely linked as suggested by Strauss and Corbin – because of the combination of qualitative and quantitative methods, the sampling was limited by the sampling plan. Nevertheless, the analytical strategy was strongly inspired by this approach.

¹⁴⁶ The distinction between categorical/ structural approaches and informative approaches corresponds rather closely to the typology distinguishing *form* and *content* by Elliott (2005).

However, within the grounded theory approach the analyses can be inductive or deductive – or a formulation I prefer: more or less theory-driven. In any case the researcher already has theoretical baggage and it is not possible to approach a research field without any ideas about it, as it is suggested by inductive epistemological models (Kelle, 1994). Therefore the concepts of theoretical sensitivity and sensitising concepts are crucial. By theoretical sensitivity Strauss and Corbin mean “having insight into, and being able to give meaning to, the events and happenings in the data. It means being able to see beneath the obvious to discover the new” (1990: 46). One technique to obtain this ability is to use (and this means not to apply them directly) literature or already existing theoretical concepts when approaching the material, in order to structure it or in order to discover meanings that without this baggage one would not have been able to see without. Blumer defines “sensitising concepts” as concepts which “merely suggest directions along which to look. [...]. They lack precise reference and have no bench marks which allow a clean-cut identification of a specific instance and of its content. Instead they rest on a general sense of what is relevant” (Blumer, 1954: 7). To sum up these two concepts, Kelle and Kluge write: “By contrast to hypothetico-deductive research strategies a qualitative study, in which the research field is pre-structured by sensitizing concepts, begins not with precisely operationalised hypothesis, but with fuzzy concepts, that in the course of the study are successively précised” (Kelle & Kluge, 1999: 27-28)¹⁴⁷. These theoretical concepts should even in very inductive and empirically-driven approaches, be mastered and consciously used when beginning the analysis of the material. In more theory-driven they become even an important tool of the orientation of the research. In this study, I employed a strongly theory-driven approach to biographical representation and oriented my glance at the material by a series of theoretical concepts that dominate the literature about achievement careers. These concepts have been extensively presented in the introductory theoretical chapter, in the section 2.5 on “Dimensions of the Achievement Career Habitus”: striving, the belief in progress and future, a special relationship to time, the belief in meritocracy and practical performance, and a pronounced work orientation. These sensitising concepts have been used to approach the material, however not in the sense of a mechanical application. They have oriented my analytical glance at the interviews, but then the representations found in the material have been used to adapt the original concepts in a reciprocal process.

¹⁴⁷ Translated by F.B.

In a first analytical phase, I read the interviews intensely and coded them with Atlas.ti. This allowed me to understand the case-oriented logic and role of representation for each interviewee and to compare them across the interviews, according to different logics of comparison. It quickly became clear that typical configurations of representations were neither completely congruent with the “objective career types” nor totally independent of them. In addition, further dimensions of comparison – disciplines (engineers vs. economists; cohorts or the economic branch) revealed to be central for the variation of certain representations. For example the idea of progress depends very much on the discipline. The idea of “meritocracy” on the other is quite common to all interviewees, but expresses itself differently according to the cohort (which is typically linked to certain positions, resources and rights). Therefore, I quickly grew aware that it makes no sense to force the representations into a rigid structure of types. It is wise, in my eyes, to start from the representation as such, describe its specificity and then to show (and explain) how it is typically linked to certain structural characteristics, such as objective career type, cohort or discipline. This strategy is very similar to the one I used in the chapter 7 (see sub-chapter 7.2).

Methodological Difficulties

The aim of this chapter is not only to examine the biographical representations at one point in time, but to describe their (supposed) evolution in the course of the biography. For example, I would like to know if the striving for a better position only manifests itself at the beginning of the career and then fades or, to the contrary, whether under certain conditions it remains even in later career phase a strong motivation for people pursuing an achievement career. The problem for this kind of research goal is comparable to the one I presented in the chapter on subjective achievement careers. First, due to the co-presence of completed and uncompleted trajectories, the representations of younger and older cohorts at later stages of career cannot be compared. Second, the comparability of accounts about biographical representations occurring at the same biographical moment, but (1) remembered from a differing temporal distance and (3) having occurred at a different historical moment is problematic. I refer the reader to the section 7.2 for further discussion of these difficulties.

8.3 The Biographical Development of Striving

In the accounts of the interviewees, it quickly appears, that at one point of their biography they developed the feeling that they want to "make something out of their life", "go further" or "have more perspectives". These relatively hollow phrases are an indication of the peculiar nature of striving: although a deeply rooted motivational impetus, it is difficult to exemplify and explain. Authors like Mannheim showed that people in certain career oriented milieus systematically and collectively longed for "better" social positions, with more prestige, more material rewards or more power and influence (Mannheim, 1952). This is typically the case for the middle classes. Unlike upper-class and elite-groups their collective strategy is not to administrate, defend or broaden an existing social status and position, and unlike working-class they are not yet disillusioned with a social rise.

Symbolic interactionists have emphasised a striving behaviour can also have functional or horizontal aims (Becker, 1952). In a career motive typology, Schein suggests that while certain members of a cohort of business school graduates strive for higher positions and more influence, others have alternative goals, such as "functional-technical competences" or "autonomy and independence". I argue that in a biographical perspective it makes little analytical sense to attribute these three types of striving *mutually exclusively* to different groups. The analysis of the interviews suggests rather that all three types of motives are present *simultaneously*. However, one of them might be dominant compared to the two others at certain moments of the career, while the other dimensions are gaining importance at other moments. The striving for "hierarchical positions", "material rewards" and "influence and power" are dominant in early career phases, while the search for functional competence and the search for autonomy gain in importance in later phases.

Does this chronology differ between engineers and economists? At first impression, business economists are striving for hierarchical rise and prestige, while the striving of engineers is oriented towards functional competences and autonomy. A closer look reveals that it is rather the rhythm of the succession of striving than the presence of one or the other type of striving per se that differs. In their *younger years* almost all of the higher occupational school diploma holders, independently of their disciplinary affiliation, are striving for an upwards career. Engineers also dream of a hierarchical rise and only during the trial phase do they reorient

their objectives¹⁴⁸. Even if in retrospect they tend to deny these initial motives, the fact that many have made a commercial post-graduate education shows, that upwards orientation had clearly been present in the beginning. Business economists, however, do not strive exclusively for vertical rise. It is possible that they develop in certain cases quite insistent strivings for functional competences, such as marketing, personnel or accounting.

I shall distinguish three types of biographical development of striving. A first group manages to maintain a relatively intensive level of hierarchical striving for a long time, increasingly adopts these patterns of thinking as a lifestyle and applies them to further domains of life. The largest group changes the objective of striving. Upwards striving, functional striving and autonomy striving are always simultaneously present. But in the course of career the latter take more precedence over the hierarchical striving which had dominated in the early career phases. Thirdly, in very rare cases, engineers and economists not only transform the goal of their striving but reduce its intensity considerably and, for example, turn their focus from occupational goals and towards family life.

Striving as a Long-Term Lifestyle

Certain individuals maintain their initial, upwards oriented striving well beyond the immediate trial-phase. They remain loyal to their wish to achieve higher managerial ranks well through the ascension phase, in their thirties and forties. This is a reaction to the events of their prior career but also to the structural opportunities (and the individual perception of these) in the current position and situation. Two types of careers favour a long-term maintenance of striving:

First, financial managers, namely in large-scale banking and insurance companies (i.e. large, differentiated firms with long career ladders) have the impression that quite automatically and continuously they are offered possibilities which lead to an organisational rise. A bank-controller in his mid-forties, looking back on his last ten years of a very successful career, says:

Interviewee #15: If you are not a failure, then you have hundreds of opportunities, well you simply have to seize them, because...if you live with the principle that standstill is regression, then you just have to seize all the opportunities.

¹⁴⁸ It seems that one of the central dynamics of the trial phase among engineers is the “construction” of the opposition and the mutual exclusivity between hierarchical rise and interesting functional competences.

For this man, there are a large number of "opportunities" (as he calls them in English) and the strategy to seize them has become for him a kind of a guiding principle, leading constantly higher in the organisational hierarchy. The slogan "standstill is regression", he does not hesitate to throw at the interviewer (as if he had to convince himself by his personal-marketing) expresses this never ending striving very well. For him striving has become an obsession in all domains of his life: work, family and military. For those who "have given up", for those "who made themselves comfortable" he has nothing but contempt.

A second group of people pursues a quite aggressive and autonomous career *across* middle-scale firms (often of different branches), maintaining their aggressive upwards-oriented attitude in spite of the lack of structural opportunities and sometimes even in the face of crises, such as unemployment. Their arduous way across the firms fosters and reinforces their individualism. Their lack of secure organisational alternatives leaves them with no option than to keep striving. An engineer who after a stormy and successful career has been through a longer phase of unemployment and now has found a post as branch manager of a large multi-national retailer says:

Interviewee #5: "What I could really well imagine is that once they say "Mr. X, we develop a new society in New-Zealand, do you want to be part of it? And then, I could imagine myself from a present perspective that I am part of it, this is one point. Of course, I speculate also very far in the back of my head, that I may once become director of a regional branch".

This response answers a final question about his future and follows long sections in which he explained to the interviewer how he went to a rather severe crisis. To mention "New-Zealand" a country literarily "on the other side of the globe" is also an indication that despite the crisis he went through he still is able and ready to be extremely flexible and extremely hungry. As with him, for this group as a whole, striving becomes an important personality and identity trait. A striving way of thinking becomes the veritable anchor of their character: they cite innumerable examples of their openness, of their flexibility or their still burning ambition¹⁴⁹. In addition, they often apply their occupational attitude to their personal life. One of the most aggressive climbers, taking high risks in his professional life, leaves very little place to

¹⁴⁹ The above cited banker even retrospectively presents a geographical move of his mother (who took him with her) as an expression of his own "flexibility", which apparently at a very young age was already an integral part of his personality. Of course many of these offensive presentations of their character traits serve also to explain and legitimate their success as a result of certain temperamental qualities.

routine or security in his relationship with his wife. In 20 years they separated three times and his family life was a constant, demanding and highly risky negotiation of the two spouses' needs. Another business economist refers to his family as a "project". Paradoxically, he thinks that it is still working only thanks to the constant challenge and to the flexibility it had to acquire because of his career. The couples' constant confrontations over "common tasks" maintained it "fit", prevented it from "running too fat" (i.e. from failing as did the marriages of numerous couples around him).

Transformation of Hierarchical Striving

The large majority of engineers and business economists however, abandoned their initial striving for a hierarchical rise at a certain moment of their career and turned either towards "interest", "functional competence", "autonomy" or "independence" (Schein, 1977: 53). The moment of this conversion depends on the career type: for members of the Technical-Industrial Career it occurs in the very beginning of the trial phase, for members of financial careers it occurs typically during the late ascension phase and coincides with the transition from ascension to consolidation.

Most of those converging towards "functional competence" reveal that they are not (or are no longer) interested in power or leading a large number of people. They see this as uninteresting, administrative, bureaucratic work and fear that they might have to "hurt" people whom they consider as colleagues and fellows (rather than as subordinates). An engineer who was a leader of a small team describes this as follows:

Interviewee #19: "I do not have ambitions that I want to supervise so and so many people or something...or a certain salary or a certain size, I do not have ambitions in this direction. Maybe in a project-team, directing people in a project-sense, but no supplementary administrative tasks with the personnel, no salary-interviews or other problems that people might have. For me it is not actually a wish to supervise people..."

The main motivation for such technical-industrial engineers is to develop new products, to advance technically and to contribute finally to the economic and social progress of their society. As already shown, this conversion to technical tasks usually occurs very early, during the trial phase, as an individual "decision" and a clearly identifiable event.

The conversion of a second group follows a different pattern. Certain business economists try quite desperately to stay “generalists”. Their conversion occurs during the ascension phase up to age 40. While in the phase of latency, waiting for their decisive career step, in their daily work they have become “specialists” and probably no longer figure in the high-potential group as far as their enterprises are concerned. Instead of a conscious and voluntary decision, this type of conversion is often accepted only after a fairly long and difficult process.

The self-employed career type interviewees are not "charismatic entrepreneurs" having a genius idea which he or she likes to sell on a not yet existing market or in a under-used niche of the market (Schallberger, 2004). The motivation to move to a small enterprise or to become self-employed is most often based on a transformation of striving towards *independence* or *autonomy*. Either as a decision against industry, large structures and organisational subordination or, for a minority, as an alternative strategy in times of crises. During ascension and consolidation it can become a reaction to unemployment or downgrading. In this case it is a decision under pressure and recourse to career anchors which have always been present, but temporarily be dominated by upwards striving.

Disengagement

In very rare cases, business economists and engineers not only transform their striving from a upwards oriented to a more functional variety, but abandon (or at least strongly weaken) their occupational striving¹⁵⁰. It manifests itself by a withdrawal from occupational life, paralleled by an increasing focus on the family or non-occupational or leisure activities. This is relatively rare and it is not very likely that completely disengaged individuals would volunteer for participation in my study. The two individuals in my sample who developed a tendency in this direction were young husbands and fathers, who had started their family rather early and who at the same time had become somewhat disillusioned by the possibilities the professional life offered to them. They say that they are not really interested in upwards striving, responsibility and or leading. They think also that the investment to be made to attain such higher positions is too high, compared to what they perceive as a generally insecure situation. At the same time, in their eyes there is no functional passion that could replace the upwards striving. The family, in contrast, is much more sure and palpable. It is, however difficult to say if the “abandonment” of occupational striving is a general trend or only a superficial observation.

¹⁵⁰ In the sample these are Interviewees #19 and #22.

8.4 Two Varieties of Progress

The future-orientation and the belief in personal and collective progress are considered to be characteristic of the individuals who want to make an achievement career. It is assumed that the idea of progress and growth has sunk very deeply into the minds of the future-oriented career candidates. The question is, therefore, how the interviewees think that the society and the economy is progressing, or should progress. Is there one dominant model or several competing sub-theories of progress? Which groups of the engineers and economists defend which models?

Two opposite models of progress appear. One is the “technological model of innovation”; the other is the “financial model of innovation”. The technological model is very deeply anchored in the mind of the engineers, while business economists tend to defend the financial model. This division into two universes of reflection and action has political and historical implications. It seems that the technological theory corresponds to the economic regime that dominated Switzerland until the mid-1990s and was at the root of the success of the Swiss economy in the 20th century (Mach, 2006). Recently this model has come under structural and discursive pressure, while the financial model is increasingly on the rise. The financial model, often defended and in a way "naturalised" by the business economists, seems to correspond to new forms of financialised capitalism. Both models include references to the common good and argument in terms of political economy. Even though the relationship to Switzerland (and to the nation as a political entity) is different in each model, the reference to a community and the contribution to the welfare of that community are still a central aspects of the legitimacy of both models.

The Technological Model of Innovation

The core of the technological vision of progress is technological innovation. The engineers defending this position attribute the post-war success of the Swiss industry to its efficient production methods and the quality and to the innovative character of its products. The architects of these work methods and products are the engineers, or even, the practical engineers holding an HOS-diploma. Particularly, the members of this group were able, in

their own eyes, to marry theoretical reflection and planning to practical experience and know-how¹⁵¹.

In their eyes, quality is the result of good, practical planning and reflection and implies a long-term temporal dimension. It is opposed to “bricolage”, to “trial-and-error” and to “messy” – operations which they associate semantically with production under “price-pressure” and “time pressure”. This quest for quality contrasts also with “quantity”. Too large quantities harm the production-conditions which guarantee good quality. An engineer explains this opposition between quality and quantity as a generational difference of work-styles:

Interviewee #14: With Firm Y (having abandoned the quality-approach) we worked of course differently, there it had to be quick, it should not have cost so much because of the competition you know (ironic), if not we would not have got the order. But once it had to be finished and they just somehow tried. Personally, I would have preferred to think about it first, to do it once and finished. In a good quality.

This engineer, now slightly disillusioned in retirement, tells how at the end of his career an ever larger gap between his understanding of a good production process and the reality at his workplace opened. In the view of this group, in order to enable technological innovation, a series of fundamental economic framework conditions had to be fulfilled. The most important is the guarantee of a certain production-cycle. Ideally, the creation of an innovative product that simultaneously contributes to economic and social progress is a process of exploring, investing, planning, developing, testing and producing. An engineer, talking about a very fulfilling work experience, supposedly to illustrate his ideal of work, explains it as follows:

Interviewee #28: The interesting thing is to say 'we want to create something new'. For example we entered the copper-cable market. We wanted to produce a cable with 100 megabit. We said 'what do we have to do?', we actually had a free hand on the world market, which machine supplier do we have? Which variant?, 'go', make a test, measure and so forth. Really from the plan of the direction, in three or four years we want to make 10 million in this domain. Mister X (=him as project-manager), do it....

This model of a process of value creation is linked to a certain type of organisation. It needs larger, often anti-cyclical investments at the beginning of a project. These projects last several

¹⁵¹ They conceive of this as a particular Swiss speciality: other industrial nations lack the practical experience (French engineers are despised as utterly theoretical) or have no theoretical understanding (China or India).

years and are embedded in even more long-term industrial strategies. In the eyes of the engineers, the model of enterprise which meets these requirements are large industrial firms directed by a paternalistic, entrepreneurial leader. This assures on the one hand rather long term, project-oriented and experienced-based career rhythms of about 5 to 7 years. On the other hand, these paternalistic entrepreneurs have the courage to take long-term, risky and high-volume decisions as they are required to develop and produce new, innovative products. The long-term perspective of this type of entrepreneur therefore fosters an organisational culture favouring experience, performance and finally economic success.

But according to engineers, this company type, armed with the courage to sow and to reap in the long term are increasingly rare. The latest since the 1990s, new models of organisation have come to challenge the engineer's ideal: in these new organisations the long-term perspective is replaced by a "short-term greed of profit" or "quarter year thinking". The courageous and responsible entrepreneur has been replaced by "faint-hearted accountants" who hinder the daily engineering-work and curtail the autonomy of engineers by their control-systems and penny-pinching spirit. At the level of middle management, the technology-conscious engineer who knows what a successful project needs, is replaced by ignorant "managers", who climb too quickly, no longer take responsibilities and earn too much too early¹⁵². The focus on quality and innovation is more and more deviated in direction of "price consciousness" and "promptitude". This leads to bad quality, grubbiness, and is, in the eyes of most engineers, directly responsible for the decline of Swiss industry. They complain that Swiss industry has abandoned the formula for success too quickly under the pressure of investors and shareholders. They hope however, that a return to a courageous policy of investment in high-quality and high-tech products will save the industrial work-place of Switzerland.

The Financial Model of Innovation

For many business economists, the key to progress is organisational rationality and efficiency. In contrast to the engineers, they have no clear and stable image of the "substance" of this rationality or efficiency. Substance does not matter, unless it improves efficiency. Thus progress is not bound to a specific process of production or a specific organisational model. In

¹⁵² The foreside in the discussion about management salaries does not lead simply alongside the large-scale – small-scale company line. Also in the large industrial companies the engineers feel uncomfortable with the new salary-policies and condemn them as unreasonable. They contrast with their understanding of legitimate creation of value.

addition, its temporal organisation can notably vary and has to change and adapt continuously to the current situation on the market.

In order to remain “rational” and “efficient”, the current *modus operandi* has constantly to be put in doubt. Very welcome are “revolutionary ideas” and “visions” – contrasting in the understanding of these business economists with mere “administration” or “management”. This can contain ideas for reorganisation, new procedures for budgeting (or the idea of abandoning budgeting altogether¹⁵³) or, for example, an understanding in terms of the “processes” of what until now has been understood in terms of “rules”. However, most of them have very clear ideas about how this efficiency-solution can be promoted and triggered: by the competition of ideas. This competition can be created just by being exposed to the market (or better, to the international market); or by specific policies that are supposed to create ideas which enhance efficiency. The fact, for instance, to participate in very competitive, international markets forces companies to interrogate themselves constantly. One business economist working in a large, international bank describes this as follows:

Interviewee #15: I think that companies which are strongly challenged, by being constantly confronted to this movement, are automatically forced to think, to think about themselves. If they are not confronted to certain movement, then they become plain and simply lethargic. It becomes cosy, it is so nice and all that. And you begin to stop to put yourself in question and....yes it is a little bit Darwinistic, you know "survival of the fittest".

Occasionally however, the mere confrontation to the market does not suffice. Thus, firms create artificial internal markets and competitive situations in order to stimulate ideas, creativity and ultimately efficiency. Take for instance the concept of “diversity”. Managers think that homogeneous, culturally unitary teams are not able overcoming the status of mere defensive managers and do not create enough radical ideas. Therefore, it is important for them to create heterogeneous teams, to let different cultures and visions collide on a same team in order to stimulate them. A personnel manager in a large bank explains it as follows:

Interviewee #17: I was a huge fan of multi-culture...the managers saw that they have to compose the teams with people with different nationalities, that these in certain cases produce better results than for instance six Swiss. Especially in an international context, if you have an Indian, a Turk, an American and a Japanese. Multi-cultural teams are more successful I would say than exclusively

¹⁵³ In fact the vision to go « beyond budgeting » that he could place at the right time, at the right place, is a contribution of one of the business economists, which seem to have – probably with other factors – boosted his career in a large bank.

ethnocentric ones and in the Bank X, the direction reflects exactly this. On all hierarchical levels we have this “diverse-workforce” (engl.)

As the excerpt above states, this account reflects the “ideology of the firm” (it is the same for both cases). But it is at the same time a sign that the people working there have incorporated it and defend it in front of outsiders, like the interviewee in this case¹⁵⁴. Implicitly, this understanding of rationality and efficiency, supposed to continually optimise the creation of value, corresponds to a counter-model to the system of “traditional Swiss Bank”. They qualify this old system as “hierarchical”, “rigid”, “mechanical”, “inert”, “comfortable” and “stable”. By contrast, the new system is constantly changing, as reorganisations have become almost routine. The changes are not incremental but radical. Traditional forms of making business – for example based on personal networks and contacts--have been rationalised.

Interviewee #13: In the past the whole branch and therefore also the firm depended extremely upon single persons with the networks they had for over 20 years. But all of sudden they received a jolt from the market out there and it no longer suffices to go out for a good meal two times a year, but he wants to see results. And it does not suffice anymore, for us to hold the stockholders’ meeting in November, as it was the case for X only some years ago. But I have to hold it in May, April. I have to get these numbers much quicker through the system.

According to these business economists, the acceleration does not only seem to concern the flow of money. It also involves the rhythm of careers and the rhythm of decisions – due to a kind of bureaucratisation of the business model. In an efficient organisation the decisions are no longer counter-checked systematically by the superior and therefore made more quickly. Moreover, in order to stimulate “creative” and “visionary” ideas, trial-and-error is encouraged, errors are permitted. Only this climate, in the eyes of the business economists, nurtures the ideas which have the potential to distinguish a firm from its competitors.

Conclusion

In a certain sense the technological vision of progress is centred on the technological product and on how it is produced in procedural terms. The financial model replaces the normalisation of the process with an increased concern for the preconditions of “creativity” and “efficiency”. The substance of the idea, as well as the precise process of their emergence and

¹⁵⁴ The fact that somebody dares to speak to an outsider (about whom he does not know much) about « survival of the fittest », an idea that is certainly not part of politically correct terms of the present time, shows that this identification goes rather deep. People like him really think that mass layoffs can be useful, even for those who are affected, because in their eyes they create new dynamics and new chances for everybody.

production, is relatively irrelevant. Unlike striving, such conceptions of progress do not evolve much over the life course. Once engaged in one direction, people no longer change their conception of progress. There is neither a slow transformation alongside certain linear biographical periods, nor is this conception changing by the effect of certain biographical events. It seems that often the commitment taken in early phase of the career is merely reinforced and stabilised by the experience that typically go along with certain types of career.

8.5 The Conception of Time: Plans, Rhythm and Order

As one of the most prominent feature of career literature, the individuals pursuing careers are said to have incorporated specific conceptions of time and the temporal order of biography.

Authors like Boltanski ascertain that managers are "obsessed" with career and the continual planning of career (Boltanski, 1982); others like Gun and Bell explain that middle class members have a particularly long-term oriented time conception and know and plan every little step of their career long in advance (Gun & Bell, 2002). By contrast, Schmeiser (with reference to Schimank) states that such detailed long-term plans are rather rare and are also historically becoming less and less likely because of an increasing contingency and biographical insecurity caused by process of individualisation from the 1960s (Schmeiser, 2006; Kohli, 1985).

Second, certain scholars postulate that the actors pursuing careers are guided by career rhythm norms. According to Wohlrab-Sahr, early success is interpreted as a sign for "potential" and therefore an important subsequent resource for the career (Wohlrab-Sahr, 1995). Career candidates adapt to these structurations and their minds are consequently oriented by an ideal career rhythm – the quicker one moves the more successful he or she is, particularly in the beginning stages of career. I therefore ask what models of rhythm are present, how they are constructed and across which mechanisms they have an influence on career decisions.

Third, it is considered that social climbers have internalised a chronological order of stages and events. This raises the question of how the ideal of a steadily climbing pathway is anchored in the representations of the actors. What does it mean in this context, to be downgraded or moved to a job not corresponding with an upwards shift? It is also important to examine other career representations, such as critical junctures or self-reinforcing

mechanisms. Do the career candidates think that they have to pass through certain functional stages in order to move on? How do they subjectively imagine the reversibility and irreversibility of vertical and horizontal career processes?

The Absence of Long-Term Career Plans

Asking the interviewees about their career plans is a surprisingly delicate thing to do. A business economist in the banking sector says it as follows:

Interviewee #15: My deepest insight after these 10 years in the CFO-domain is that you cannot plan a career. It is plain and simple impossible. Possibilities always arise somehow out of the situation.

He is not the exception, but rather typical of the lack of career plans. The interviews indicate that very few of the interviewees have detailed, rational and long-term career plans. These plans do either not exist or at least cannot be verbalised to strangers¹⁵⁵. Several of the interviewees even explicitly stated that it is not possible to have a career plan. Two reasons could explain this: it is possible that those who want to climb have to avoid announcing too publicly and too loudly their ambitions. For “tactical reasons” (not to inform every “competitor” about ones intentions) or because of the pre-eminence of meritocratic values – requiring to prove ones abilities with deeds, not with words – these people are very cautious when they talk about their career projects. It also seems that a time is long-term oriented and precise career project is not possible, because the structural and biographical contingencies are far too heavy. At most, people think about an “objective”, which can be expressed by an educational title (“I want to be engineer”), a hierarchical level in the organisation (“I want to become director”) an occupational status (I want to become my own boss). How they attain these positions in processual terms is rarely a part of a concrete plan or conscious planning.

This outcome contradicts the widely shared idea that one of the characteristics of modern society is to have a stable and secure life-plan (Berger et al., 1973). Perhaps the term “life-plan” is simply too ambitious. The fact that life has become more predictable with modernity

¹⁵⁵ Here I presume that more explicit career plans exist, but that they cannot be a subject of conversations with work colleagues and even interviewers. In fact, at least in certain cultures, understatement seems to be a direct career resource. Only when an individual clearly has ambitions and is at the same time able to keep them for himself will he or she also make a further upwards career. To be too explicit about one’s career goals can be interpreted by colleagues and superiors as arrogance and an overestimation of one’s abilities. Second, the silence about career plans is certainly also a kind of a psychological protection strategy. Often career steps are not very likely and somebody who openly announces his or her plans and constantly has to correct them, certainly quicker to see himself as a loser. Plans that have not been announced can always be denied after they have not been realised, even to oneself. See also : Boltanski, 1982.

and that certain middle class groups have particularly foreseeable life-projects, does not mean that 20-year old career-candidates have already in mind which steps, in which order they are going to take until the retirement with age 65. An alternative position would be a kind of a "biographical incrementalism" or "small-step-planning" (Schmeiser, 2006: 83). "The starting point of the biographical incrementalism is not an actor who sets himself clear-cut goals in order to attain these with systematically planned and pursued strategies. It is by contrast assumed that goals are often vague, that strategies for goal-attainment are almost always sketched fragmentary and shortened and that long-run strategies of agency are replaced by short-term observation and their change of goal-attainment" (Schmeiser, 2006: 83)¹⁵⁶. If life-plans in a long-term perspective have never existed as such, even not among career candidates, it is possible that the vagueness of goals and the balance between "long-term strategies" and "short-term observations" changes historically. The mix of retrospective and current qualitative material, however, does not allow me to examine if this vagueness has changed over the cohorts.

In the centre of the engineer's and business economist's time conception is rather the fear of a long period without moving, as a kind of a negative counter draft of career. The picture of a very long period of "non-movement", of "standstill", of "dullness" of "routine" until the age of retirement is finally what they say, pushes them to break out of their milieu's modal trajectory. This categorical cleavage between career as "constant moving" and non-career as a negative, depressing and dull way of living is essential. A self-employed business economist, first being designated by his parents to become a teacher, describes it as follows:

Interviewee #11: but then when I thought a little bit about the occupation [teacher], I knew "if you are a teacher, then you know more or less what you are doing until 65" and that was simply too dull for me, definitely, this disgusted me.

Very similarly, an engineer talking about his early career stages distinguishes stagnation from movement:

Interviewee #5: with 22-23 one is still relatively young and it makes sense to invest a certain time. If one works many years on the occupation, until 65 is quite a long time. That I should invest a little bit here was actually clear for me, particularly for me it was evident: "I am not growing old behind the drawing board", this cannot be it.

¹⁵⁶ Translated by F.B.

These excerpts show that this negative counter draft of a long standstill is more typical and formative for the career candidates as rational and detailed career plans. Typically they are drawing their motivation out of a comparison to the supposed trajectory in case of non-ascension.

Rhythm as a Career-Norm?

Business economists and engineers have a relatively precise idea of the rhythm a career ideally should follow and if their own career is in agreement with it. The reflections about career rhythm are often retrospective: the interviewees look back at the rhythm of their career to date, in order to draw conclusions for the near future or in order to justify their wish for a change. These reflections are the most urgent during the trial and the ascension phase. During these spells the questions of career and the future advancement are of particular relevance and still have an important influence on potential modifications of social identity. In later phases, with the fading (or the transformation of) of striving the question somehow loses its central character.

An analysis of the way the interviewees think about career rhythms shows, however, that the ideal and the meaning of career rhythm can differ according to career-types. Besides cases where “rhythm” is used as a “symbolic measure” of career-potential, the career rhythm can also be a symbol that shows that one is “flexible”, “moving” and “mobile” or a sign of an overly individualistic and selfish strategy, one that takes no consideration of more collective rhythms.

Career Rhythms as Markers of Potential and Success

Often the interviewees speak of a “logical” or “natural” career rhythm and express their unease when their own trajectory breaks out of this temporal corset. This indicates that there exists an ideal rhythm, which gives the career candidates interpretable signs on their future chances. The following excerpt shows how a very successful business economist in a financial career experiences his career and how he is able to take the quick rhythm as a sign of his potential.

Interviewee #10: It was brilliant, it was a very hard activity but fabulous in terms of experience and after that they gave me new functions. They saw that the finances were under control, I was promoted to vice-director and they gave me all the internal services. Finances, purchase, human resources, pay-

roll, quality, marketing...all the internal services, I had all except operation and sales...each time in stages of 2 or 3 years, 2 or 3 years I made a job and then the next, they saw it was under control, I move to the next. Yes this was a rhythm, a good rhythm, a very good timing.

For such persons who experience massive success in the ascension phase, the accelerated rhythm of careers is a sign itself of success. It functions as a marker of success and future potential. In order to present their own trajectory as a successful one they resort to narratives of an accelerated rhythm. The successive moves give the interviewer a supplementary impression of the success, which cannot be told by referring solely to hierarchical positions.

Career Rhythm as an End in itself

However, rhythm is not always associated with success. The interviewees' narratives about rhythm express the wish to present themselves as people with a "flexible" and "mobile" character. It is used to demonstrate that the striving has not yet totally faded.

Interviewee #22: For half a year I have had a little bit this feeling, "yeah now, somehow something should happen again". Not that I had spat with my boss and would say that I should leave or with my colleagues, or that I would not be happy with the conditions or the job, in fact everything is alright. But...I have done it now 5 years, 5 and a half even, may be this would give me a new kick to begin with something new, to make a change, to begin from the start.

This business economist has the feeling that he has arrived at the end of a cycle. Perhaps also to demonstrate to the interviewer, that he is still hungry and flexible, he states that he has begun to look around because it is normal to change, even though this change is not really bound to a concrete upwards dynamic¹⁵⁷. They even say that they would begin "something different", that they "don't care what it is" – in other words: rhythm becomes an end in itself, moves are taken because they protect these individuals from the sense of stagnation (even though the moves are not incorporated in an upwards dynamic). Furthermore, the fact that the interviewees speak about their wishes to change indicates the potency of the norm of the career rhythm. It allows them to present themselves as mobile and flexible characters, even if this career rhythm does not directly reflect success.

¹⁵⁷ In this special case this is certainly also due to the fact that during the interview-section preceding this account, he has been talking about his « settling down », about his family, etc. In this sense it is also a reaction to a categorisation by the interviewer as « settled » that he mentioned this explicitly his hunger.

Career Rhythms in Tune with Collective Rhythms

The trajectories of those pursuing a Technical-Industrial Career are particularly determined by the duration of projects, for example, to develop a product or to bring an invention to production. In contrast to individual rhythms, functioning as signs of success or of a flexible character, this rhythm-norm is integrated in a collective context, the team, and serves an objective of the firm: the product. In the eyes of the engineers, only at the end of one of these project-cycles can changes legitimately be envisaged. The engineer has a certain responsibility towards the project, his team and the firm. A too-quick career rhythm is thus the reflection of a failure to understand the production model and a sign of an individualistic and selfish character. As in recent years new organisational models, new actors and new types careers have emerged, technical-industrial engineers in particular are speaking about career norms, mainly by complaining about their systematic violation.

Interviewee #18: This is what I call quarter-year thinking, they [the modern managers] only think in spells of three months. I mean in the past, an entrepreneur used to think in 10 to 20 years, it is like this that firms have grown, they thought "this is in the moment not important, I have the money, so I put it in the firm and we will see what happens". And if you do this within the team, this is important then, that everybody stands behind it and says: "yes, we do it, we stay the course and we stay here for four years". Because in this case everybody has to account for the decisions he takes today in four years and I can say "it is you who has decided this bullshit". Whereas, if he sits only two years on his chair he is never confronted with the situation where he has to account for the things he has chosen, he runs away before he has to settle the bill. This is this short-term thinking and later they are away, it has been another one, nobody can be held responsible for anything anymore...

This older engineer, even though not personally demoted, has the feeling of a steady "managerialisation" of his work. For him rather obviously – and here also as a kind of rational and conscious analysis of what is happening – the individualisation of career rhythms contrasts increasingly with the production model he thinks is ideal.

Representations of Temporal Order

A further aspect of the time conception of engineers and business economists concerns temporal order. Do different groups of career candidates have a more or less precise normative representation of the ideal career order? Do they think that certain periods or events have to be experienced in order to be able or to have the right to move to a next step? Or inversely, do they think once a certain vertical or functional boundary has been trespassed the movement cannot be reversed?

In fact, these representations about temporal ordering are central to the conception of careers. I found evidence that the interviewees think that once they have quit or entered a certain “position”, that a return to the prior position is no longer possible¹⁵⁸. In certain cases they think that once they have passed a certain period within one position or domain they undergo a certain socialisation which reinforces or accumulates certain traits or resources in a way that makes them become increasingly different from those who have not followed this pathway. This cumulative difference can be of a hierarchical character. The cumulatively created gap between two groups can be functional or concern certain representations.

Hierarchical Irreversibilities

Almost all engineers and business economist thinks that when somebody has attained a hierarchical level, it is socially and sentimentally “painful” or “humiliating” to return to a lower level. However, for social climbers, whose pathway is dominated by rising moves, this norm remains implicit. It is such a matter of course, that only very seldom it is verbalised. Only for those and at those moments when it is violated does it seem to acquire an explicit and therefore “problematic” status. This is, for instance, observable among people who attain their “possible peak” too early and then are forced to move one step down. The norm also appears when people go through a period of unemployment and are forced to reorient themselves. An engineer in his late thirties tells how he experienced this reorientation:

Interviewee #5: when I became unemployed I already had a certain age, I was 35 and at this age you also have certain ideas about your salary, then I had been working as director of a small firm. If I would become again a structural engineer...yes, this would be a clear regression in the career.

Even more than such explicit statements, the subtle, latent but continuous comparison engineers and business economists make, show that they have a relatively clear idea of their position and status, including a whole combination of factors as salary, prestige, firm-size and hierarchical position. Even in difficult and sometimes desperate situations (the engineer above had been unemployed for 13 months at the time of the interview) they are not ready to give up this principle - a hint that this kind of critical juncture is fairly powerful and valid. Preferred alternatives to downgrading include horizontal moves, for example in another unit or a yet

¹⁵⁸ Position here can embrace different things: a "hierarchical position", a "functional domain", a firm or an economic branch.

unknown domain. Such a move, in addition, blurs potential hierarchical shifts, as often for outsiders it can not be judged in vertical terms.

Functional Irreversibilities

Engineers and business economists also believe that certain functional boundaries are irreversible. The most salient such critical juncture is the passage to non-technical functions among engineers. In the conception of engineers, leaving technical functions signifies not being able to return to this domain. They argue that since the technological development is so rapid, one is doomed to “lose touch”. The following excerpt reflects this representation, deeply anchored in the engineer’s mind, which works rather as a menace or even a legitimisation for having stayed in the technical domain:

Interviewee #16: My boss said, "if you once become manager, then you cannot return anymore, then you are away from technology [...], the higher you move in your career, the more you dissociate yourself from technology and once this decision has to be taken and then you are gone. I have a colleague, he has a degree in electronics. Three years ago he decided to move away from technology and has been vice-director for some time and now Firm X, they have taken over this domain last autumn. Now they have just closed it down, not profitable anymore. And now he is on the dole, but now he has only managed for the last three years, three or four years out of the running. He cannot find a job, while at the same time they look for engineers like crazy, but now he is neither fish nor fowl.

Even though the development of work techniques and concepts in sub-functions of business administration are probably as quick as in technology, business economists have no such fear of losing touch. For them, the boundary between “specialisation” and “general management” is problematic. They fear that after a certain time in “specialisation” (IT, accounting, personnel) a return to general management is no longer possible. But similarly, the critical juncture is rather (or as well) “mentally anticipated” than real: business economists fear a specialisation because they would have been pigeon-holed by superiors as “specialists”, a label that would compromise their chances to return to a “generalist” status and consequently to maintain their chances to climb further.

Self-reinforcing processes

Many of the career norm representations have a durational aspect. Career-candidates think that the time spent in a particular position and domain leads, through a rather slow and sometimes unconscious mechanisms of accumulation, to dissociation from the state they

occupied when they entered that position or domain¹⁵⁹. It is not the fact to pass through a position, but to stay a longer period in this position which slowly leads to a threshold from which a return to the initial position seems subjectively unlikely or impossible.

For example, the fear of business economists of "drowning" irreversibly into specialisation and consequently no longer being on the tracks leading vertically upwards is not so much about specialisation per se, but about the *duration* of this specialisation. On the contrary, a short passage through a specialised field, such as accounting, personnel or IT is welcome in their eyes as long as it is only temporary. The exact moment when a stay in one position leads to a transformation of one's "character" is very delicate to determine. Typically, business economists tell stories of competitors who have missed the moment to "break out" and who slowly "slid" into specialisation without really being conscious of the impossibility of a return.

The mechanisms of self-reinforcing process that leads to irreversibility are not always clear or visible to the career candidates. Of course, it can be accelerated by formal rituals as specialisation courses. But in most of the cases it seems to be a process of slow and daily erosion. As water hollows out rocks, the daily insertion into a certain unity and culture, the confrontation with specific colleagues, the contacts that are typically related to a position or simply the character of the work may subtly and often invisibly erode the ways of thinking and acting, in ways that transform duration into a threshold of no return.

Conclusions

An examination of engineers' and economists' representations of time relativises the importance of long-term projects and career plans. To date, this aspect, I think, has been overemphasised by career- and middle-class theory. The planning process of most of the economists and engineers resemble "biographical incrementalism". Like a runner in the dark with a headlamp, social climbers seem to shed light on a more or less long career-spell in front of them. The luminosity of the lamp may vary historically, depending on the institutional support and the stability of cultural career patterns. Very rarely however, is it strong enough to illuminate the whole biography until retirement. Even though the planning-horizon possibly has been longer for social climbers in the 1950s or 1960s, life-plans must

¹⁵⁹ De Coninck and Godard (1990) speak in this context of « slow causality ». It appears that this is not only an analytical tool but has implicitly become/ or already been part of « common sense » representation of temporal causality.

have already been rare at this period. Because of the difficult comparison of retrospective accounts of older cohorts with present accounts of younger cohorts the qualitative data do not allow me to draw any valid conclusions about the historical changes of the length of the planning-horizon.

Then again, the data show very clearly that other aspects of temporal conception, namely “negative counter drafts”, temporal rhythm and temporal order may be even more decisive for career than “plans” or “projects”. Engineers and business economists also have relatively precise mental conceptions of ideal career rhythms. These rhythms, however, can have different functions: while upwards-oriented members of financial careers consider a rapid rhythm as a marker of their potential and success, members of technical-industrial see in a too quick rhythm a sign of an individualistic and somehow selfish behaviour. Representations of norms of temporal order are probably among the most decisive career mechanisms and could also be more important than career plans. I can show that the career candidates have relatively precise ideas about the order of career spells and try to conform to them because these correspond to their ideas of achievement and success. These, however, can vary. While engineers are afraid of leaving the technical domain because of the potential insecurity they impute to this farewell, business economists fear that the passage through specialist functions hinders their return to “general management”.

8.6 Meritocracy?

The interviewees strongly object to ascriptive or even statutory models of justice. They think that no innate characteristics as gender or socially ascribed traits as nationality, ethnic group or class origin should preside over what a person receives and achieves socially and economically. They thus clearly are supporters of a so-called meritocratic conception of justice and equality, saying that people should be rewarded in regard to what they do, to their performance. What they think to be just however, depends in large part on the “measurement” of performance and its legitimacy. In their eyes, merit should be evaluated by the competences and the actual performance on the job, rather than by formal educational credentials.

Educational Title as Formality

Formal educational credentials play a slightly ambiguous role among engineers and economists. It can be something for which at the period of their education they had to struggle hard and which to the milieu of origin has sometimes quite some meaning. One of the engineers told me that his mother has framed his diploma after his graduation, but that by now this old gilt frame is stored somewhere in the cave. Although important and a reason for pride at the moment of its attainment, the title is not reason to deduce a social position or a right for a certain career from it. It is a mere “paper” in the practical eyes of these individuals.

At the same time it is a kind of a “basis”, something you must have in order to be considered as a career candidate, as somebody who has to right that by the mean of his performance on the job he should be promoted. In this sense, the curriculum or the title is something that guarantees the mastery of certain knowledge and is sometimes used to illustrate and legitimate the boundary between engineers and technicians. If it can serve in some cases as a defensive “delimitation against the bottom” it is rarely used as an argument in order to justify the right for a certain promotion or a certain position.

The claim and particularly the “automatic claim” that an educational title should be rewarded with a certain position in the enterprise is strongly proscribed and complained as a statutory and obsolete type of thinking. This reflects the strong individualistic presentism of these social climbers (what somebody did long years ago and in addition in a completely other context is not relevant today) and the disdain for non-democratic and non-merited privileges that König et al. (1985) already observed among the employees of the beginning 20th century. A business economist speaking about young graduates with “wrong ideas” illustrates this point very well¹⁶⁰:

Interviewee #15: If somebody has attended an education, then at the end he has somehow a qualification which enables him to take a certain function in a company. But then, if you come and think “hey, I did this and that and because of what I have done, I am entitled to go this or that way”. This is a completely erroneous attitude. It never stops, the only thing that counts is what you make out of it yourself...

¹⁶⁰ This business economist, being in a kind of reflection period on his accomplishments to date (he will soon continue his career in another country and change his function), is at the same time legitimising his own successful career in front of the interviewer by emphasising that it is based on performance and merit. As other interviewees, but because of his very successful career dynamic particularly even more so, he seized the chance offered by the interview to “sell” his accomplishment and trajectories to someone who is interested in his career and at the same an outsider, who does not intervene in the evaluation of it.

He describes the attitudes of young beginners he dislikes, thinking that an university title will automatically lead to a promotion. He affirms that this kind of attitude will fail confronted to the “reality” and he finally opposes this social figure to the one who not only seeks to climb thanks to performance on the job, but who does a constant work on himself, who is constantly ready to shape and reshape his personality.

Interestingly the interpretation and individual meaning of post-grade diplomas – particularly such as MBA’s – re-affirms oftentimes the accessory status of titles. It should never be a direct reason for promotion. Even though the MBA title is also often the first real academic title and therefore could have a special status to these people, it is seen as only the formal confirmation and legitimisation of the performance or the tasks they have *already* fulfilled in their daily work. In other terms: it is exclusively the daily performance that counts, the MBA is only a title that sanctions these abilities formally and gives them value beyond the very situational context of the firm.

Applied and Theoretical Knowledge

Parallel to the devaluation of titles as “*abstract*” and “*void*” resources the knowledge acquired during these educations is, always put in comparison with the knowledge used “on the job”. Even though they concede that the concepts and theories learned at the higher occupational school are a necessary basis for their daily work, the knowledge as such, the abstract, non-used, non-applied knowledge is systematically devaluated by these engineers and economists.

This is reflected in the engineer’s appreciation of their “theoretical competitors” from the Swiss Federal Institutes of Technology. They respect their theoretical knowledge, their (in the engineer’s eyes often superior) intelligence but only if they are able to apply it practically. Because of their exclusively theoretical background they say that lag systematically behind the practical engineers at the beginning of their occupational life and have to learn “to apply” and “to implement” their knowledge. Within a couple of years they have caught up their arrears and are able to compete with higher occupational school engineers on the basis of their daily performance.

This kind of anti-intellectual and strictly pragmatic posture is paralleled by a glorification of “competences” or “applied knowledge”. This is a knowledge that emerges as a consequence of the confrontation of theoretical knowledge with “reality”. In their eyes, compared to the “rigid”, “abstract” and “disinterested” theoretical knowledge learned at universities or higher occupational schools, this practical knowledge is pragmatic, useful and flexible. It can only be learned on the job, it is about “concrete cases” and adapts constantly and in a flexible way which is not possible for rigid “rules” and “recipes”. The “know-how”, the “savoir-faire”, the “competencies” are in the eyes of the social climbers much more legitimate than theoretical knowledge. Several of them told with a non-hidden pleasure anecdotes of university formed individuals who were not able to transform their knowledge into know-how:

Interviewee #30: During my longstanding experience I saw more than once an unable university degree holder, I can tell you that, more than once. They have such a baggage, but they are unable to implement theory into practice. Such a baggage, from St. Gall or Bern or elsewhere, but in the practice they were useless. We had one like that at the firm X, he was even a doctor, rer. pol. All the 250 employees there called him the “Ticket-director”, because the only thing he was able to organise was the annual works outing. This is sure a bit malicious, but he was really useless.

It is likely—and explicitly revealed in some of the interviews—that such anecdotes mocking university degree holders also reflect a sort of vengeance towards, or bitterness for, situations in which the latter have been preferred¹⁶¹ over engineers and business economists with HOS titles, without, in the eyes of the HOS graduates, taking into account the “real” performance.

Performance and Its Legitimizing Force

The legitimating value of performance—as a kind of actualised and proven competence—is even higher than competence. There seems to be no major differences according to the discipline or the economic branch. For both the very technical development engineer and the international insurance accountant, what counts is “*what someone brings*” and “*what a person achieves*”.

If differences exist between cohorts, these differences express themselves in the contrast between intuitive and accounting-based evaluation of performance. In their ascension phase,

¹⁶¹ Or have been paid a better salary for seemingly very similar work. According to engineer #16 it is rather common that in industrial research teams university engineers and HOS engineers work together in the same team, with the only difference that the first are significantly better paid for the same work. However, according to him, these differences tend to disappear.

business economists insist upon the legitimacy of highly individualised “performance measurement” with large personnel accounting systems (Power, 1997). Engineers—and, in particular, older engineers—consider these purely “rational”, “individual”, and “technical” systems of evaluation to be too reductionist, and they prefer—either as the evaluated or as the evaluators—more “intuitive” ways of evaluating performance. Intuitive, in this sense, means that the evaluative methods are based on the judgement of the direct superior; this is less transparent because the evaluator does not always have to explain and weigh the factors that have led to his judgement. However, this kind of model does allow for the inclusion of relational and contextual factors.

Experience

I previously showed that the principle of justice for engineers and economists is based on *presentism* and *practicality*. In this context, what is the value of experience and seniority? Experience is probably the factor whose value and signification changes the most during the life course. The positions of younger and older individuals towards experience reflect rather precisely their positions within the struggle for power: younger engineers and foremost business economists view experience and seniority as formal, and they void any criterion that stands in their way to the top. Typically, younger career candidates feel that they are treated unjustly and complain in more or less the following terms:

Interviewee #6: It was just a question of age, not of competence. They (the older ones who were preferred to him) were promoted because they were there since 20 years, not because they were particularly performing.

In the eyes of the younger, often the number of years is not an adequate indication of performance.

Older people, especially those who would like to consolidate their careers, have a much more relaxed and positive attitude towards experience. They also respect experience because they say that they now “*see what it really means*”. Thus, the meaning of “experience” can change quite dramatically; for older individuals, experience means knowing the history of the firm, having a large network, and possessing contextual knowledge. All of these factors contribute, in their eyes, to better performances. The “performances” to which these people refer are not actually measurable by personnel-accounting systems, because they are wider and more long-term oriented. They concern not only “individual” performances but also the collective

performance of the whole firm. In some cases, older individuals deplore the “consumptionist” attitude of the following generations and the lack of respect with regard to experience:

Interviewee #2: Today, if you have 18 or 20 years, the system allows you actually to get anything quickly and as a consequence, in my opinion, they want everything instantly. Sometimes, you even hear people who say, “Oh no, I don’t want to study, I don’t want to make experiences for 5 or 10 years, I give you the money and then you give it to me”. It is like that in this consumer society, where we want everything instantly, now and easily. But the knowledge, the know-how, you don’t acquire it like that.

Personal Characteristics

Under certain circumstances, personal characteristics can be a legitimate criterion of justice. However, traditional ascriptive criteria, such as nationality, for example, are not considered legitimate. The distinction between legitimate and illegitimate criteria hinges around the fact that one can influence something by one’s will. However, the boundary between that which can be influenced by will (openness or flexibility, for example) and that which cannot be influenced by will (nationality, gender) seems to have shifted in the direction of a larger responsibility on the part of the individual for his or her character traits by younger and successful career candidates. These candidates emphasise that you have to be “clever”, “mobile”, “open-minded”, or “*psychologically* decentred”. In a context where everyone holds a good degree, and where everyone possesses a large knowledge base and a high competence level, these characteristics can become crucial.

8.7 Work and Family

The quantitative analysis of the relationship between career types and family types was not very fertile, as there is no statistically significant link between the two typologies. In the conclusion, I made the assumption that this might be due to the relatively simple conceptualisation of the family trajectory, which is limited to the moment of marriage and the birth of the children. Further analysis of the styles of familial interaction, marital satisfaction, or marital conflicts would have been interesting in terms of shedding more light on the relationship between the familial and the occupational domain. Another possibility would have been to use the available qualitative data on the family, which could inform us of the reasons for the poor quantitative results and help us to better understand why, for example, engineers and business economists are postponing family-starting, or why they are more

oriented towards occupation than towards family. In addition, the relationship between work and family has been one of the sensitising concepts that has guided my analysis, as in the literature, the strong work orientation of people who want to pursue a career is usually emphasised (Vester, 2001) The qualitative data on family is not complete in every case. Sometimes—as it was announced that the interview was “on careers”—people implicitly refused to speak about their private and family lives.¹⁶² Qualitative data can complete the understanding of the relationship between work and family of those who pursue a career. Namely, we are interested in why people marry later, why their partnerships do or do not succeed, and in what ways their family lives are compatible or incompatible with their occupational trajectories.

The Male Breadwinner Model

The very large majority have a rather traditional conception of family, and it appears that they chose partners who share this conception.¹⁶³ Independently of age, the fact that the man works full-time and the woman stays at home seems to be so self-evident to the interviewees that they rarely discuss the decision process which led to this result. In fact, engineers and economists display a very strong male breadwinner identity and rarely fail to emphasise that in cases where their wives return to the workforce, it is not “*for material reasons*” but to provide the wives with interesting tasks after the children have left the nest.

Interviewee #28: When I came here, the youngest son attended apprenticeship, anyway he did not need his mother anymore and then she began [to work as employee] again. She only works 30 to 40%, it is not for financial reasons, but she wanted to do something and I said "of course, you can do what you want".

In several aspects, this excerpt illustrates fairly well the representation of the division of work within the couple.¹⁶⁴ The superficial and discursively modern interpretation of this interviewee’s masculinity—“*you can do what you want*”—only thinly masks his traditional image of the relationship. He underlines that the labour market participation of his wife does

¹⁶²This applies especially to the interviewees who were either gay, divorced recently or have not yet been engaged in a stable relationship.

¹⁶³ Of course this is only an assumption. I have not interviewed the partners and can therefore not say how they feel about the conception of work and family of their partner and the consequences for themselves.

¹⁶⁴ Clearly in the interview-section on the relationship between occupational life and family life, the fact that the interviewer was also a man « helped » in the sense, that in these situations a sort of a “immediate male complicity” tends to emerge. The conversation can very quickly approach a “talk among men” and seldom do the interviewees seem to try to hide their relatively “conservative” family conception or their preference for a – moderately – inegalitarian division of work within the couple.

not interfere with the upbringing of the children, and he emphasises that his wife “only works 30 to 40%,” highlighting that she is not working for financial reasons. In addition, the way he fatherly approves of his wife’s wish to work is an illustration of the enduring dominance of the traditional male breadwinner model.

The very large majority favour their careers over their family lives and are normally not willing to make occupational sacrifices to facilitate family life. Generally, they consider the family as an “obstacle” or as a potential career breaker. An engineer says:

Interviewee #2: Today, there is what you want to do. But also what you can do, the possibilities and I think you have to be able to put aside some things, things you don't like. But there are also realities, well now I am a family father, I have a child, a second arrives, so whatever happens in life, already you do no longer think in the same way...with a wife, ok, today women work, they are independent, they do what they want and then you have children...you CANNOT (loud) do as you want, you cannot any longer, because you have a responsibility.

According to the above interviewee, a family hinders occupational flexibility and tends to hamper career options. On the other hand, a family means a “*responsibility*”, especially since the engineers and economists conceive of themselves as—and often are, in reality—the sole breadwinners of the family. By consequence, their career decisions will be influenced by this perception of security and responsibility. However, even if these two subjects—flexibility and security—are quite general, in the perception of the interviewees, the strategies they use to cope with their family situations can vary widely and depend on the course of their careers, as well as on their representations and local rooting. These strategies include: *postponing family*, *flexibility despite family*, *flexibility with family*, and *family orientation*. These four strategies are distributed on the life course in a certain order, and they are also loosely linked to certain types of careers.

Postponement of Family Starting?

In this first section, I discuss the perception of engineers and business economists in the moment of family starting and having children. It is not always easy, however, to compare the retrospective accounts of older cohorts to the explanations of younger cohorts who are presently dealing with family starting.

Three of the interviewees already had children during their studies (between 20 and 24), and two others had children shortly after their entry into occupational life. At least retrospectively, these engineers do not consider it a problem to combine careers with having children. There was a tendency to narrate the experiences as something that “*kind of happened*” and to tell the story as an adventurous tale of the young couple who courageously and pragmatically coped with the difficulties.

Interviewee #11: Then in 82 the first son was born, we married and then this caused briefly a little bit of stress, but retrospectively I have to say, we had a real good time, I never had so much time for the children as during studies. My wife worked part-time, the parents helped a bit financially and I worked relatively hard as cab-driver. And this went very well, relatively modest...but no, I enjoyed very much this time of study.

In contrast to such tales of early, “unplanned”, and relatively laconic narratives, family starting seems to be perceived as a much more serious and fundamental decision by younger engineers and business economists.¹⁶⁵ They explain their very reflected upon, long discussed, and negotiated strategies for ordering their studies, their careers, their house-building, and the birth of their children. The former light-heartedness seems to have disappeared among the younger cohorts. Perhaps as a reaction to the emancipation of women, the issue of the temporal ordering of studies, family, and settlement is more carefully discussed by the younger generations. Perhaps also, the context of greater insecurity and a potentially difficult entry into occupational life—at least in the media discourse present in Switzerland—forces young couples to think more thoroughly about the planning of family and work.

Certainly, this issue would merit more thorough examinations. In the following lines, however, I will concentrate on the individual strategies in order to articulate career and family life. Besides the traditional and maybe increasingly conflictive separation between family and career, I observed that younger career candidates either rationalise the family or, in rare cases, abandon the dominance of career over family by adapting a more instrumental relationship towards occupational work.

¹⁶⁵ However However, these tales have to be treated cautiously, as they could also be the result of a kind of « reminiscence effect » that not only consist of a better quality of memory about a particularly dense and important period of life, but also in a retrospective “euphemisation” or “positive distortion” of this period. (See also : Reimer, 2001 : 45).

Conflictive Separation Between Family and Career

The traditional strategy to handle the tensions between family and career is to separate the two and to concentrate almost exclusively on career. This solution requires a very traditional interpretation of the family role by the partner. The man gives priority to his occupational life, invests very little time in family life or his children's education, and forces his family to follow the rhythms of his career. This can imply geographical moves or a temporal separation of the family, but chiefly concerns the everyday allocation of time between work and family. In a kind of asymmetrical arrangement, family time is quite strictly ancillary to occupational time.

This kind of strategy, which may have been evident to older generations, can potentially lead to conflicts and has come under social pressure. One interviewee who functioned for a certain amount of time using this model confesses to have been "separated three times" from his wife, in particular because of conflicts caused by the difficult articulation between career and family life. Another interviewee sums up his family situation as follows:

Interviewee #12: In fact I married right after my graduation and then simply two children came. And now appears a little bit the problematic of the family. I am more the type who goes in direction...yes, of work and this caused correspondingly some conflicts. We are still married, we gathered ourselves together with all the problems that this naturally causes, well it has not always been harmonic, I have to say that plainly. This change from work, I travelled around a lot in Switzerland, later also internationally, of course this caused absences...which my wife did not always welcome...

Even spouses who accept traditional family arrangements express discontent when confronted by their partners' selfish career pursuits without concessions. In addition, the complaints of a younger generation of wives may be even more virulent. Even if this traditional model is far from being completely abandoned, it seems that it is slowly giving way to two slightly "modernised" alternatives.

Rationalisation of the Family

The first of these alternative models could be called "*rationalisation of the family*". It is characterised by a simultaneous inclusion of the family in the career project and an extension of career attitudes to the family life. In this model, family and career depend on each other; in order to be able to motivate the family to take part in the career, the family must be partially organised according to a rational model not unlike that of the occupational life.

The family takes part in the flexibility because it moves around according to the father's career destinations, or the wife may accompany her husband on his business trips, which are linked to holidays. The family benefits from the "*personality*" of the father (formed by the career) or, for example, from his language skills. The members of the family also meet interesting people and become a part of the occupational engagement of the father. Moving around is presented as an occasion for the family to learn and to broaden its horizons. On the other hand, the father or head of such a family is, in a sense, managing the family as if it is a "project" or a "firm". The following excerpt illustrates how an economist "manages" his family:

Interviewee #10: Two things are important: to speak Swiss-German [both parents are native French speakers] and to be good at school. It goes very well with the two older ones, I have to push them a bit [...], I tried to give them a lot of autonomy, by saying "I do sign every half a year, you look for yourself". It did not work and as a consequence I changed into reverse gear and every weekend I say "we look what you have done, you look what you have to do, now you stay here and you do this and this and this". I make a planning and controlling, I sign their marks, "what have been your marks?", "pay attention, there you have to work more to be sure", etc.

Another business economist states that he considers his family to be a "project" and that his occupational "challenges" have also always been challenges to his family. For example, the economist conceived of his prospective move to East Asia (with two children, aged 10 and 12, already enrolled in school) as a family "project" that was "*planned*" and "*brought up together*". These are examples of a modernised version of articulation of career and family; the strict boundary between the two spheres is weakened, they are discussed and negotiated "together", and the family takes part in the career but is also treated along criteria which have been typical for rational, occupational behaviour.

This kind of behaviour seems to be more widespread among younger economists who attain success a long way into the ascension phase. They typically have opportunities to climb higher, and, most of the time, they are still hungry to go further. Because the possibility of "retiring" into family life does not exist and because the social environment (and probably their partners) conflicts with the traditional model of separation of work and family, they integrate their families into their careers. This model is rarely chosen by industrial-research engineers and other groups whose careers are quickly slowed down and whose chances to rise are lowered.

Family Orientation?

A second, slightly modernised strategy of articulation between family and occupational life can be called “family orientation”. It is also loosely dependent on a certain career course.

Several of the younger interviewees, having had children at a relatively young age, stated that they had “not made children to never see them” or that “a high salary is no good if my family suffers constantly”. They “felt” that their family lives “suffered” because of their professional lives. This was a common feeling of all the engineers and economists interviewed. In addition, they had adapted their career strategies in order to see their families and children more often. This does not mean that they stopped striving or that they turned down major career opportunities because of their families. In some cases, one gets the impression that these professionals actually “sabotage” their careers by choosing companies and jobs based on the proximity to their families or the allowance of family-adapted working hours. One engineer describes how he could no longer reconcile his long working hours with his family life:

Interviewee #19: I then saw, with this temporal investment, it does not work out anymore with the family. I did not register working hours anymore there and then you just lose these two hours [...]. Of course, they gave us some “sweets” [bonus], but I did not say that I wanted a greater salary, I would have rather had more time; it makes no sense if you work every evening until 8 and the family suffers...

The engineer’s new job is less demanding, closer to where the engineer lives, and allows him to compensate for supplementary overtime. However, even though his family life is now much improved, the firm shift marks an abandonment of the engineer’s former career and former ambitions.¹⁶⁶ He stated:

Interviewee #19: It is a new branch, absolutely new. I have been 9 years at firm X. First, you leave a branch of course, where you have a) already a certain knowledge; b) you have a lot of contacts, internally first, but with the project management you learn to know a lot of clients too, where you have built up a certain relationship, where you have taken over follow-up projects. Of course, you give up all of this; it is now really a new beginning, on the green grass.

¹⁶⁶ Interestingly, this engineer called me also one day before the interview-date in order to tell me that “in fact he is not really somebody who is making a career and is not sure if his case would be useful for my study “. This sign for a relegation of career to a lesser importance seems to fit well with what he says explicitly in the interview.

Two questions arise at this point: how is this orientation embedded in the biography, and who tends to gravitate towards this kind of behaviour? Possibly, it is a younger cohort of career-pursuing fathers who seek to articulate family and career in a more equal way. This is possible but difficult to confirm with the qualitative data. What seems to be conspicuous, however, is that this decision is not only paralleled by but often also preceded by a fading of striving. Thus, this orientation towards family is possibly also a reaction strategy in the face of career disillusion. The above cited engineer, for example, has slowly discovered that he is actually not seeking a further ascension. Others recognise that their chances for a further upwards move are limited. Therefore, it is possible that a fading of career striving is typically compensated by family orientation.

8.8 Conclusion

The results suggest that while some of the representations change over the biography, others remain relatively stable.¹⁶⁷ Certain representations behave rather as biographical habitus, while others can be more adequately described by constantly but typically changing biographical schemes.¹⁶⁸ Most saliently, the nature and intensity of striving is changing across the career. Of the three basic motives, vertical striving, functional striving, and striving for independence, the first is more dominant early on in a career, while the other two become more dominant in later phases of a career. This also means that the feeling of striving and opportunity structures—respectively, the subjectively perceived opportunity structures—are moving along across the career. They are bound together with a more or less short rope, which sometimes lets the individual representations move ahead and other times the objective opportunities. In other words, it seems as though, in some cases, the negative evaluation of career chances is slightly preceded or followed by a transformation or a reduction of striving. Inversely, the reduction of striving, as well as the abandonment of its aggressive manifestation, leads to a narrowing and a closing of perceived opportunity structures and then actual opportunity structures. It is possible, however, that those whose successful careers

¹⁶⁷ These conclusions have to be read with caution, however. A repeated interview at several moments of their lives would have been more adequate to understand changes of individual representations than retrospective interviews.

¹⁶⁸ However, this insight is based on qualitative accounts and therefore the idea that social actors can narrate and retrace the « biographical history » of their representation. To a certain extent this result is also based on comparisons of – at the time of the study – younger and older engineers and business economist. This comparison is problematic, because the biographical changes could also simply reflect generational effects.

enable them to maintain an upwards-oriented striving transform it into a relatively stable lifestyle.

It is at the two ends of this continuum that career motives spill over into the family domain. The representations of the boundary and the articulation between family and work are coupled to striving, most saliently for those who maintain to strive and for those who abandon striving radically. In the first case, the family can be swallowed by career. Striving becomes a kind of core feature of the personality. The way of thinking and the strategies are more or less systematically transposed onto the family. The family becomes a project that has to be managed like a career or a firm unity. At the other end of the scale, the family can become a refuge for those who are disillusioned with their careers and to whom even a transformation of striving towards functional competences or autonomy is no longer a satisfying solution. Family orientation, according to this hypothesis, goes along with a certain abandonment, or at least a radical narrowing, of the career project.

The conception of progress and the principles of justice show that certain representations remain fairly stable over the career or express themselves only slightly differently over the life course. The representation of progress seems to be strongly dependent on the occupation and, therefore, varies, mainly between business economists and engineers. Even major structural changes do not alter these conceptions. It seems to the contrary that, for example, the crisis of the technological model of progress has further mobilised, reinforced and even triggered a certain romanticism of technological innovation among engineers. The threat of a representation of progress that is closely related to their roles and their occupational identity seems to deepen engineers' convictions and never leads to a conversion in terms of conception of progress. Thus, unlike striving, the conception of the articulation between work and family does not adapt itself biographically. Structures and interpretations are not bound together in this case, and a transformation of structures does not necessarily result in an adaptation of representations.

The principles of justice are a good example of a representation that remains very much the same across the biography and throughout the career types at its core, but it may express itself slightly differently according to the career phase. Even though "practicality", "applied knowledge" and "performance" prevails over the "abstract", "theoretical knowledge" and "title" in the eyes of almost all engineers and business economists over all career periods, the

question of how it can best be measured is subject to biographical change. This is shown by the example of experience; though in the eyes of younger career candidates, experience is a symbol of formal and non-justified advantage, in the perception of older engineers or business economists, it is a direct translation of “performance”, only in a broader sense.

The most surprising results certainly concern the representations of the individual future, the rhythm, and the temporal order of career. It appears that the literature chiefly focuses on “career plans” and “career projects”, while those making careers do not have detailed and long-term life plans. Because careers are far too contingent, their future anticipation is characterised by a kind of “biographical incrementalism”. Instead of plans, a whole series of alternative temporal representations are crucial: the fear of a dull, stagnating, and routinised life; normative representations of career rhythms; and, most importantly, representations about the temporal order of certain career periods. The last point indicates that career choices are highly dependent on representations of “ideal” or “possible” careers and are not merely the result of structural automatisms.

As with the results of chapter 7, the analysis of these qualitative accounts on representations has to be treated with caution. Above all, this is due to the fact that I try to reconstruct the transformations of certain representations over the life course. As the interviewees find themselves at different biographical positions, this necessitates two kinds of problematic “reconstructions”. First, I have to trust, to a certain extent, the subjective narration of the transformation of representations. However, we know that representations are always seen in the light of the present situation. For example, someone who has not been very successful in his occupational life will not talk about the fact that he was once very ambitious. This would give his narration even more of a colour of failure and potentially also necessitate that he present himself as someone who is not very coherent. We know that biographical memories are not always very reliable. It is very possible that older engineers and business economists are not really able to reconstruct how they felt in their twenties. Secondly, the analysis of the transformation of representations over the life course is also based on comparisons between younger and older individuals, with the idea that the difference between the two corresponds to a kind of biographical development. This kind of analysis poses the risk of attributing changes to the biographical stage when they may, in fact, be due to cohort membership.

PART III

Conclusions

9. The Interplay Between Structures and Representations

9.1 Introduction

In the heuristic model in chapter 2, I described biographical trajectories as interactions between institutional structures and individual representations. Starting from there, I discussed the institutions that give shape to careers; I described careers as objective trajectories; I shed light on the subjective interpretations of trajectories by the actors pursuing them; and I examined the representations that typically go along with careers. In order to understand the unfolding of achievement careers, it is now necessary to *relate* all these elements systematically. In this chapter, I will reunite all of these elements and examine their interactions. As the heart of the study, this chapter is thus intended to give a *comprehensive overview* of career development and career differentiation. At the same time, it sets the stage for chapter 10, which explores the potential transformation of achievement career during the period between 1970 and 2000.

This is the first chapter of the conclusive part of this thesis. This means that I try to raise the analysis to a higher, more abstract level. It is, in a sense, a summary and re-analysis of the four empirical chapters, Chapters 5, 6, 7, and 8. I use all of the different data I have presented to date simultaneously and in the same analysis. This means the analyses are based, at the same time, on the quantitative sample of 442 business economists and engineers (see Chapter 4 and Chapter 6) and on a qualitative sub-sample of 30 business economists and engineers (see Chapters 4, 7, and 8). I do not present again the data in a specific section. Please refer to the methodological chapter and to the sections on the data in Chapters 5, 6, 7, and 8. In other words, I no longer directly refer to the data and instead refer to the preceding chapters when I present specific results or reflections in this chapter.

In the first section, I investigate the moments when career types differentiate and ask how these moments differ with respect to the career types. In the second section, I illuminate the six objective career types that I have developed, and I attempt to explain their construction in time by taking into account all the elements and mechanisms I have presented thus far. I take one type after the other and chronologically examine how the structures and representations, in their interplay, create different objective and subjective career dynamics. Finally, I explain

the main career mechanisms across the types. I distinguish between opportunity structures, family structures, types of knowledge, career anchors, and self-reinforcing mechanisms.

9.2 Biographical Differentiation and the Hourglass Effect

The types of objective careers constructed with optimal matching techniques are based on sequential similarity. Careers with close sequential patterns are grouped together and assumed to have common “career logics”. These career logics, however, develop within a specific temporal framework and are the result of specific biographical processes. Therefore, it is crucial to examine the forces of differentiation during the successive career phases. Such a chronological analysis of the crucial career events/phases is easier for the earlier sections, as here I have the data of the whole sample at my disposal. The later sections rely exclusively on the data of the older engineers and business economists. As I explained in Chapter 6 (as well as in Chapters 7 and 8), this means a thinner database and also poses the danger of a generational fallacy. The conclusions about the earlier events must be treated with caution. Here, the danger is to misinterpret the retrospective narrations and to neglect the fact that the times when they occurred have structurally different characteristics compared to the present.

A first bundle of questions about biographical differentiation concerns the link between social origin and career. Are the subsequent typological differences between careers already present—in a kind of a sleeping state—during early childhood and thus the direct result of the social origin? Does the social origin resurface as a kind of intermediate variable in differentiation mechanisms at later career stages? Or, a last alternative, can career dynamics develop that are, to a certain extent, independent of social origin? (De Coninck & Godard, 1990) Second, it is important to identify the phases that contribute to a further differentiation of careers, or that temporarily or enduringly even out differences between once disparate trajectories (Dannefer, 2003). Third, these mechanisms of differentiation are not likely to set in, in exactly the same way and in exactly the same moment, for all types. For instance, it seems that small-firm careers are based on characteristics chosen at later career stages.¹⁶⁹ By contrast, technical-industrial careers seem to be based on employment in research and development departments of large industrial firms. Because of the organisational structure of industrial firms (see below), choices have to be made very early. And these choices do subsequently close people

¹⁶⁹ This hypothesis is based on the fact that this type does not yet emerge in the shortened typology (see chapter 6). Only when longer trajectories are taken into account it emerges. I interpret this as a hint that this type only emerges at a biographically later moment.

into certain trajectories. Thus, I posit that certain career types differentiate in earlier biographical phases, while others develop distinct profiles at later stages.

Already, a first glance at the overall sample of engineers and business economists shows that biographical differentiation is not a linear process. More adequate is the metaphor of the *hourglass*: the interviewees come from socially (relatively) varied backgrounds, they all passed through the same institutional eye of the needle, and then they pursue careers that lead to increasing differences in terms of position, prestige, or ways of thinking.

I have shown that the social origin of HOS business economists and engineers lies within a rather narrow diameter concerning the educational level, the occupational position, and the social strata—slightly above the average population but clearly below the social background of university students (see Chapter 4). Nevertheless, they are differentiated in terms of social origin. The educational level, the occupational position, or the social strata membership are not the only aspects of social homogeneity or heterogeneity. I postulate that among the specific samples of this study, another important dimension of social origin is the difference between more traditional, rural, manual work and modern, urban, employed, non-manual work. I showed in Chapter 6, on the basis of the qualitative interviews, that the apprenticeships are chosen in a rather automative way and often reflect, therefore, the values and choices of the milieu (parents, friends). Because these cultural milieu factors determine the choice of the type of apprenticeship, those from a rural, manual, or technical background tend to chose a technical apprenticeship, which subsequently leads to an engineering-based career, while those with a more urban, non-manual, already service-oriented origin are more likely to opt for a commercial apprenticeship, which leads to a business economist-based career. Since four of the six career types are largely dominated by one of the two occupations, this choice of apprenticeship is *decisive* for the subsequent career course.

In the period immediately following this choice, however, it seems as if the differences in origin disappear. Neither the moment of awakening nor the moult phase seems to have a significant influence on further career choices. In almost every type of career, I found both individuals who had a very early awakening and individuals who had a very late awakening, occurring after years of occupational experience. Also, the structure of the process within which the striving emerges is hardly important for the future unfolding of the career. There seems to be no systematic or logic link between the emergence of striving and the career type

individuals are subsequently pursuing. The same is true for the moult phase, during which the differences between the interviewees are insignificant, and social characteristics are temporarily masked by the dominant status of student. Most of the interviewees graduate in military and literally all of them¹⁷⁰ go on a trip abroad in order to bridge the time immediately prior to or after their education at the higher occupational school. The higher occupational school is the biographical eye of the needle through which everyone passes, and it is the most important common characteristic. However, this common status as student is fallacious. In their study on social reproduction, Bourdieu and Passeron write that behind this common activity, their social characteristics and attitudes tend to be hidden (Bourdieu & Passeron, 1964). Only subsequent to this period of fallacious homogeneity do the trajectories begin again to differentiate, and the social differences—potentially—begin to “reappear” as factors orienting the unfolding of careers.

I suggested in chapter 7 that during the trial phase, engineers and business economists very quickly chose or reject certain entry portals and seek jobs that correspond to their ambitions, expectations, and identities. This leads rapidly to a limited but important functional—and sometimes vertical—differentiation in terms of functions, branches, or influence and salary, for example. Interviews with the younger career candidates suggest that during their early development, they are quickly driven apart by their representations, perceptions, and ways of thinking. What is more, the decisions made in this phase, operating as career anchors, will determine the direction of the future trajectory (not in the least because of the subjective representations of temporal order, as I have shown in Chapter 8). Thus, the careers have a great implicit differentiation potential, even if this is realised only during later phases. It is mainly during the ascension phase that the differences are created, based on the “preparation” of the trial phase. The “tracks” on which the career candidates find themselves have inscribed the possibility of ascension, the rhythm of ascension, and also the duration of the ascension phase, which is crucial.¹⁷¹ Those who enter the consolidation phase very early on stagnate on the same level, while those who move vertically until a relatively higher age are deepening the gap. During consolidation, and a fortiori during the cooling-out phase, the differentiation process slows down. In particular, as is shown in Chapter 7 on the basis of a certain number of retired engineers and business economists, vertical changes are increasingly

¹⁷⁰ With the exception of those who have a family already while studying.

¹⁷¹ This is a combination of the insight that certain choices, for example for technical/ research work occur at the very beginning of the trial phase (see chapter 7) and that this choice determines the rhythm, the loyalty and the success of the career (see chapter 6).

rare at this stage, and the stabilisation of one's position probably does not really deepen the differences at this point.

This short overview shows that the subjective career phases have different functions for the development of career, and they also contribute to varying degrees to the emergence of horizontal and vertical differences. It seems that for the unfolding of careers, the very early decisions and the early career phases, namely the trial phase and the ascension phase, are of particular interest. As I have proposed in the chapter on subjective careers, the decision to pursue a particular apprenticeship is highly milieu-based and most often made collectively, in accordance with the parent and the social environment. This highly milieu-based decision, together with the orientations of the trial phase, determines the career direction. It is on the basis of the choice of the apprenticeship that a specific HOS-discipline is chosen.¹⁷² And the disciplines, in turn, are of prevalent importance to the "choice" of career (see Chapter 6). Once on track, it is during the ascension phase that career types are developed and differences between career types are deepened and accentuated. However, even this general scheme does not apply in exactly the same way to all types of careers. I assume that in certain types, the potential orienting influence of the apprenticeship choice is weakened or inverted in the trial phase. It is also possible that two types of careers have, to a large extent, very similar trial phases, and the decision dividing them subsequently falls only at the very end of this phase or even only during the ascension phase.

Is this chronological unfolding and the hourglass effect the same over time and for all the cohorts? This question is not an easy one to answer, mainly because of the difficult data-situation. As I explained at different moments in Chapters 6, 7, and 8, especially with regards to the later career stages, I am not able to compare younger and older cohorts, simply because the cohorts aged 35 to 40 at the time of the survey (2005) have not yet reached all of the career stages. Therefore, in this chapter, I am concentrating on the earlier career phases, such as the moult phase, the trial phase, and the ascension phase. All of the conclusions on consolidation or on the cooling out phase are based only on a rather thin data basis; they concern only the older cohorts and therefore have to be treated with caution. In addition, the conclusions on the earlier career phases must be treated carefully as well. All in all, it remains difficult to differentiate clearly along cohorts. Among other things, this is due to the types of data I am using simultaneously in this chapter—data on objective trajectories (Chapter 6), on

¹⁷² In order to attend the Technical Higher School the candidates have to have a technical apprenticeship ; for the Commercial Higher School a commercial apprenticeship or a preparatory commercial school.

subjective trajectories (Chapter 7), on the structural context (Chapter 5), and on the biographical representations (Chapter 8). For example, as I previously explained, with subjective trajectories (see Chapter 7.2), it is difficult to directly compare the narrations of early career phases of individuals who are currently retired with those of individuals who experienced early career phases only some years ago due to retrospective unreliability. The difficulties of cohort comparison are also due to the changing structural context in which the unfolding of career is embedded. For older cohorts, the structures of the organisations in which they made their careers were vastly different than the structures of the organisations in which younger engineers and business economists experienced their early career phases. Furthermore, the relative meaning of a technical vs. a commercial apprenticeship, the “value” of an HOS title, or the relationship to other competing groups might have changed historically and given career unfolding a completely different meaning. Several time-related, cohort-related aspects are, thus, not easy to control due to lacking or insufficient data. I have reacted to this by formulating very cautiously and by introducing concrete examples wherever possible. Also, for a more dynamic analysis of the confrontation of different cohorts with change, I refer the reader to Chapter 10, in which I attempt to describe how different groups (i.e., different cohorts) have been reacting to the crisis of the 1990s.

9.3 The Functioning of the Career Types

Technical-Industrial Careers

The results of Chapter 6 indicate that the technical-industrial career unfolds exclusively in the large-scale firms of the industrial sector in functions such as production and development. This sectoral and functional limitation is combined with a fairly slow career rhythm and a vertically limited ascension. While virtually all of these engineers move to lower or technical management, only 45% move up to middle management, and only 8% transition to upper management. In addition to being *closed into* a certain sector, these actors reach a career ceiling at a relatively young age. How do structures and representations interact to create this kind of career pattern?

The most decisive events and choices leading to this type of career occur during the trial phase. They result from a combination of particularly structured entry portals in the industrial sector and the aspirations of a part of the engineers. According to the qualitative accounts of most of the engineers, until recently, the Swiss industry offered graduated engineers only one

dominant career entry portal—as developer or planner in the research or production department. This is confirmed by the distribution of the first function after higher occupational school: 78% of the engineers are either in research/development or production, 4% in marketing, 5% in IT, 5% in human resources, 2% in general management, and 4% in finance.¹⁷³ In addition, the engineers who subsequently become managers apparently have to pass through this stage—only very few begin in finance, marketing, or human resource management (see above). This structuration could be based on a career model assuming that only those who know the basics of the tasks accomplished in a unit are able to subsequently manage such a unit.¹⁷⁴ In addition, the qualitative accounts of these technical engineers point to a rather sharp separation of “commercial” and “technological” functions in industrial firms. Structurally, it seems to be difficult to pass from one domain to the other and especially to move “back” from the commercial domain to the technological domain. This structural situation meets with specific representations of engineers in the trial phase. As I showed in Chapter 8, engineers, in particular, conceive of the passage between the technical domain and the commercial domain as irreversible. The structural situation is thus echoed in their perception of and very responsive reaction to this divide between the technological domain and the commercial domain. They use the opposition to foster and reinforce their identities as engineers, and they quickly integrate it into their perceptions. Those who are going to pursue a technical-industrial career develop very early on a career anchor based on functional-technological competence and dissociate themselves from commercial and managerial aspects.¹⁷⁵

This means that technical-industrial careers are characterised by an early match between a structural opportunity (researcher/developer in the technological domain of a large industrial firm) and a specific career anchor (based on technological competence). Therefore, I postulate

¹⁷³ 2% are missing. These data stem from the FH Schweiz questionnaire.

¹⁷⁴ This is clearly an echo of the “« German career model” ». In this model, the managers, in order to move to the next higher hierarchical level, have to know and master the level below. This model is opposed to the anglo-saxon model of general management. In this perspective, “management” is an autonomous task, independently of the group, the sector, or the work one is managing. Consequently, managers have no need to master the tasks of the people they manage (Offe, 1970; Davoine, 2005).

¹⁷⁵ This does not necessarily mean that they simultaneously abandon all ambitions of a vertical rise. To the contrary, it seems that in the early trial phase, they still believe that technical work is not only combinable with hierarchical rise, but that technical competence can be an important resource for a vertical rise. Only after some time do they begin to “realise” that managerial tasks imply an abandon of “project work” and “development”. And, at the same time, they begin to interpret management tasks as “uninteresting” and “boring” administrative work.

that these individuals' trial phase is fairly short; they know very early on what they want and are also promised rather secured and foreseeable pathways in these large industrial firms.

Once on that rather technological track, these engineers come to believe that a breakout from the technological domain is irreversible. They assume that when they abandon the strictly developing domain, they will not come back and inevitably lose contact with it, be it in terms of knowledge or in terms of identity (see Chapter 7). In the sense of a self-reinforcing process, the longer engineers stay within the technical domain, the less sense it makes for them to leave this domain (see Chapter 8). Perhaps, it is not so much a fear of losing touch with technological advancement as it is an issue of identity. The longer engineers evolve as "technical engineers," the more they become convinced of the rightfulness of their way of thinking, which is, in their eyes, in blatant opposition to the commercial model of progress. This is why, for an engineer, leaving the technical domain corresponds, in a certain sense, to a siding with the enemy.

As a consequence, the technical-industrial careers will remain limited to a narrow spectrum of development and production in large industrial firms. In other words, it seems that the ascension, consolidation, and cooling-out phase is very much constrained by the structural opportunities these firms offer to technical engineers. During the ascension phase, their occupational moves are structured, first of all, by the projects and development cycles (see Chapter 7). A technical engineer typically works for one or two production cycles for three to five years as a simple member of a development team or production team. After this period, this engineer may take the lead of such a team or assume a task in the technical staff—as quality manager, for example. It is likely that this also corresponds to the needs and conceptions of the companies. Their engineers, gaining experience on this rather low project rhythm, adopt an idea of performance and justice that is very much based on experience and a kind of collective utility. By all means, it is not the "best one" or the most ambitious one who will be promoted, but the one who thinks and works in the service of the "project", the "firm", or the "profession". Thus, even though these projects might be integrated in large-scale and differentiated companies, the hierarchical space within the technological domain is per se limited and leads to an early flattening of the technical career, completed by a conversion of striving towards functional competences. Based on my data, it is difficult to say if the recent changes I sketched in Chapter 5 also shake up these structures and the conception of

ascension in the technical departments of large industrial firms. A first element of response can be found in the next chapter.

While the striving for functional competence has already come to dominate in the course of the trial phase, it seems that the slow realisation of the rather limited structural chances to move upwards within the technological domain leads to a further flattening and a reduction of the intensity of striving. In a process of slow mutual adaptation, opportunity structures and aspirations are accorded and lead to an early consolidation. Most of the middle-aged engineers have no ambition to rise higher. In some rare cases, this absence of structural possibilities and the opposition between a technological and a commercial conception of progress even lead to a kind of retirement into the familial domain among the members of this career type.

Industrial Management Career

In comparison to technical-industrial careers, industrial management careers are less orderly and imply also significantly more shifts between firms. This group changes more often between firms. In some cases, these changes imply a downgrading or, to the contrary, an upwards career jump over more than one level. On the other hand, members of this group more easily bridge technical management positions and are also significantly more successful: 25% reach upper management at an average age of 35 years. In comparison to financial banking careers or financial careers, however, members of the industrial management career are still significantly less successful. The question is now how decreased orderliness and loyalty, as well as the higher and more successful career rhythm, can be explained.

Almost 60% of those pursuing an industrial management career are engineers. They are thus confined to the same structures of single-entry portals in research and development (and production). The qualitative accounts (Chapter 7) suggest that in contrast to the members of technical-industrial careers, however, they cannot identify with a purely technological career anchor. They do not conceive of themselves as “developers”, “handy men”, or “researchers”. Their will to rise dominates over their technological passion. Consequently, they head for an outbreak of the strictly technological domain and anchor their careers in terms of accomplishment and achievement (Schein, 1971). This breakout is delicate and is considered by most of the interviewees to be a critical juncture; they think that once this boundary is crossed, a return to the initial position—with a wider range of opportunities—is no longer

possible or, at least, no longer thinkable (see Chapter 8). And, indeed, the optimal matching analysis shows that late-stage career returns from industrial management to development or production become increasingly difficult and rare (see Chapter 6). Most likely, this results from an interplay between structural and identity-bound factors. On the one hand, to bow out of technical engineering is a potentially hurtful decision. It implies a deviation from the straight engineering path and a dissociation from the group of engineers. A re-crossing of the boundary, therefore, would be humiliating for the individual and probably also eyed suspiciously by those who have stayed in the strictly technical orientation. In the sense of a temporal self-reinforcing process, a longer evolution in managerial or staff function structurally would lead to a loss of touch with technological advancement and a slow adoption of a more managerial perception of progress.

For structural reasons, the breakout is not of a completely contingent nature. A large majority of industrial management career members remains within the industrial sector or at least in touch with technical tasks (see Chapter 6). Technological knowledge seems to be a “clinging knowledge”. Several of these management engineers informed me that they use their knowledge of technology as a comparative advantage against direct competitors, or, in difficult times, they return to their technological origins because they feel “more at home” in this sector. However, a technological background does not seem to be a very transferable knowledge and procures no special advantage in other sectors. In fact, as I have shown in Chapter 5, only a few engineers are, for example, working in the banking and insurance sectors. Therefore, their field seems to be restrained to large-scale companies in the technological domain. These are often the only firms in need of specialists who combine managerial knowledge with technological knowledge. Second, it is likely that the outbreak of a relatively secure situation and the decline of the institutional offer to work as specialised technical engineers possibly lead to irregular and non-orderly moves and, therefore, to a prolonged trial phase devoted specifically to the search for a new identity between technological competence and managerial competence.

Based on the fact that a larger proportion of industrial management engineers attain upper management positions (compared to technical engineers), I conclude that the outbreak allows them to move into different functional areas, such as marketing or sales, but they also assume purely managerial tasks, which include vertically higher positions. The relative success that these people have could, therefore, be directly due to the extension of the space of

opportunities that the outbreak from the technical domain brings about. During the ascension phase, the industrial management careers are constantly at the crossroads between a technological and a finance-oriented conception of progress. These conflicts, in turn, might lead to non-planned departures, firmer shifts, and, potentially, disorderly changes. Another reason for the more numerous changes in the ascension phase could be the fact that industrial firms rarely have explicit internal career schemes. This is, at least, what was told to me by several management engineers (for example, #12 and #28) who “suffered” from this lack of internal career schemes. Unlike most banking and insurance firms, industrial firms do not rely so much on internal training and, according to most of the interviewees, do not propose “recruiting pools” or systematic internal educations, such as an MBS education, for example. This might contribute to a lower loyalty and to a disposition to seek upwards moves, not only internally but also in other firms.

Striving and the maintenance of striving is never completely detached from opportunity structures or, at least, from *perceived* opportunity structures. As these are declining, not the least because of the pyramidal organisation of companies and the successive tightening of upper management posts, the striving is transformed. The aim changes from a further hierarchical rise to a consolidation of the current positions in the middle or towards the end of the ascension phase. The accounts of the management engineers suggest that, compared to the technical industrial careers, this moment occurs later, and compared to the financial careers, this moment occurs, on average, a little bit earlier (see Chapter 6).

Service Staff Career

Service staff careers are pursued in the service sector and consist of moves within different staff functions, such as personnel management, marketing, or IT. Together with small-firm careers, they are the most non-orderly career type. In addition, this career type is characterised by a relatively high disloyalty. Those in service staff careers are significantly less loyal than those in technical industrial careers but also slightly more loyal than those in financial careers. Those who pursue service staff careers are also quite successful, with 60% reaching middle management and more than 30% moving to upper management. The field has a rather heterogeneous pattern encompassing several sub-types of careers, namely reflected by the fact that it is comprised of business economists (57%) and engineers (43%).

In the trial phase, the variety of possible entries for business economists seems to be much larger. Based on a mix of qualitative narratives (Chapter 7) and an analysis of the composition of the trajectory type (see Chapter 6), I postulate that in the case of service staff careers, this leads to three different sub-types of trial phases.

The first consists of business economists who do not want to remain generalists and who voluntarily become specialists from the start.¹⁷⁶ They begin their trial phase as specialists—for example, in marketing or human resource management—and, like technical engineers, quickly identify with this functional competence as their career anchor. They perceive the tasks with which they are confronted to be congruent with their personal traits and competences. In other words, because they are “*passionate*”, “*creative*”, and “*intuitive*”, they look for a job or a domain where they can realise and use these strengths. As is the case for technical engineers, for this sub-group of specialists, the trial phase is rather short, and they quickly find an entry into the ascension phase.

A second sub-group consists of engineers who, like members of industrial management careers, recognise during the trial phase that they are not made for research and development. Therefore, they seek to quit the strictly technical domain and look for tasks that open more possibilities but are still rooted in the industrial context. The move to a staff function is, in this case, also considered a critical juncture, which makes it difficult to return to the technological domain. Their trial phase is, therefore, also characterised by a farewell from the strictly technical domain, an identity reorientation that leads them to staff functions and eventually even into the service sector. As in industrial management careers, however, this might take a longer time and can potentially lead to firm shifts, some of which might be non-orderly.

The last sub-group consists of business economists whose trial phase is comparable to members of either the financial banking career type or the financial career type. Similarly, they begin in audit firms or as assistants to directors and attempt to maintain their generalist profiles in the beginning. It is only later, after the beginning of the ascension phase, that they either realise they might want to specialise or that they are being slowly specialised by their companies without consciously wanting this specialisation.

¹⁷⁶ In this sense, marketing as a typical female sub-field of business administration is not only connoted by supposed female attributes as “creativity” or “intuition”, but is also a specialisation which does not lead to general management (in contrast to accounting or other finance-related specialisation).

Two of these three sub-types seem to spill over only during the ascension phase into this trajectory type, often not very consciously and clearly. At the same time, most of these functions—such as IT, marketing, or human resources—are more transversal than engineers’ skills, which are most often exclusively attached to the technical and industrial domain. An analysis of the composition of the type shows that it is not dependent on one dominant branch but is instead spread out into several branches (see Chapter 6). These more open structures of opportunity could be one explanation for why this career type is, all in all, quite successful and why the period of ascension can be extended quite a long time.

For example, a human resources manager who had made his whole career at one large bank said that at a certain critical moment in his career, in his early 40s, he considered seriously changing industries. Such a radical change of sector with the objective to re-accelerate one’s career is not imaginable for engineers. Another reason for the relatively long-lasting ascension in this career type is that these careers have been built up only recently and new opportunities have been created and developed. Specialists, either in human resources or in IT, stated how their units have been developed and extended in recent years and how this also contributed to an increase in career chances.

As the type is rather heterogeneous, there are no typical structures that can determine the career chances for all of its members in a uniform way. It is difficult to discern a specific type of evolution of striving common to all members of this career type. In comparison to other career types, such as the technical industrial career or the financial career, the picture of the service staff career therefore remains somewhat vague. When it comes to later career phases, I have only limited material at my disposition to help me understand the cooling-out phase in the case of service staff careers.

Financial Banking Careers

Financial banking careers are characterised by the most profound hiatus between high values of orderliness and low values of loyalty. In addition, of all the career types, financial banking is the youngest and the one with the most shifts between firms. The members of this career type, which is characterised by financial functions in large-scale companies of the banking and insurance sector, are clearly more successful than engineering-based career types but also less successful than a “freer”, more independent financial career type; only 35% attain an

upper management position, compared to 53% in the financial career type.¹⁷⁷ This can be explained by the interplay between structures and biographical representations across the career phases.

Compared to engineers, the entry portals for business economists are structurally much broader. An examination of the first job after graduation from the higher occupational schools shows that 8.4% of business economists begin to work in production or R/D, 43.3% in marketing, 20.6% in IT, 4% in personal, 12.15% in “general” functions, and 8.5% in finance (2% are missing).¹⁷⁸ The subjective representations and intentions suggest that, especially in this trial phase, most of the business economists try to remain “general”, “open” and “polyvalent”. Therefore, they seem to prefer structural opportunities that are institutionally designed to produce polyvalence. These can be jobs with audit companies or, for example, assistant to the director jobs. In recent years, the audit firms, in particular, have become important entries to the labour market for career-oriented candidates, proposing rapidly changing assignments with a large variety of firms. Additionally, these firms assure solid on-the-job training in accounting and allow employees to make contacts with potential future employers. Assistant to the director is another career entry job that allows practicing “general management” tasks right from the beginning, giving the career candidate, at the same time, the opportunity to meet potential (internal) employers and recommend himself or herself.

The interview accounts on striving (see sub-chapter 8.3) suggest that, in some cases, these young business economists fear a “too early” closing-in by specialisation, which would exclude them from an upwards-oriented career. This fear of passing through a critical juncture (see sub-chapter 8.5) leads them to change firms when they get the impression that they are at risk for being closed in. Unlike the trial phase for technical engineers, the identity development of these business economists is not characterised by a quick and stable match between the position offered and the aspirations. Often, the struggle for the adequate position, therefore, goes on and continues to consume energies and investment. Also, the trajectory of members of the financial banking career is not characterised by a fundamental breakout, as it is in industrial management. The qualitative accounts suggest that those in financial banking

¹⁷⁷ As already noted, these values have to be interpreted cautiously, because not yet all members of the relatively young financial -banking career -pattern might have attained upper management status.

¹⁷⁸ For a comparison with engineers, see above. There, almost 80% begin to work in the technical domain (Production and R/D). These data stem from the FH Schweiz Survey.

careers have neither limited the space of the possible by passing through a critical juncture nor been forced to adopt a fundamentally new occupational identity during the trial phase.

In contrast to members of the financial career, who strive for promising accounting or controlling jobs in mid-sized and large companies, those in financial banking careers make decisions for large-scale firms rather than for specific jobs. They opt for large-scale firms in the banking and insurance sector because these, the career candidates believe, offer various internal possibilities and have an interest in training and promoting young professionals for the long-term. Large banks or insurance companies, in the eyes of career candidates, are much more open and permeable than industrial companies in the eyes of engineers. While the latter divide industry mentally, in a rigidly separated technical and managerial universe, changes between different finance-related functions (accounting, IT, controlling, compliance, etc.) are much more easily imaginable, structurally, and hardly linked to potentially hurtful transformations of identity. Because of the rather frequent restructurings and reorganisations of such firms, younger members of this career type, in particular, quickly learn to avoid too deep an identification with a function, a unit, or a discipline. In their eyes, this would compromise their chances of a further hierarchical rise and would lead to unnecessary anchorage in structures that could possibly change at any given moment.

In sub-chapter 8.3, I distinguished between two types of trajectories in the ascension phase. On the one hand, there seems to be the very successful individual “who only has to pick the hundreds of offers and chances which pass by” and quickly moves on to a hierarchical dimension with a regular rhythm. These movements are, at the same time, fuelled by a rather aggressive striving and seem to produce greater striving and ambitions. On the other hand, there are the individuals who still hope to go further vertically and struggle to avoid specialisation but are not really included in the upwards dynamic. Their ascension and consolidation phase is characterised by a slow and somewhat reluctant acceptance of specialisation. This process of “being specialised by the firm”—which is rather different than the technical specialisation of technical-industrial engineers as an early identity choice—can be rather hard to accept and only slowly leads to adaptation of the limitation of opportunity structures. Several of the business economists between 35 and 40 years of age in the large banking and insurance firms found themselves in this situation (Interviewees #13 and # 21).

However, it is not always clear if these people are really sinking into specialisation or if their careers could potentially return to a direction of vertical mobility.¹⁷⁹

According to the opportunity structure, the ascension phase is more or less long-lasting. Those who enter a dynamic of chances possibly make a kind of a lifestyle out of it, which spills over to other life domains, such as family life. By contrast, those who are slowly specialised reduce and transform their striving, in most cases with a certain temporal lag. They replace the hope for further ascension with an acceptance of their specialist roles and the striving for functional competence. This moment of acceptance often corresponds to the symbolic boundary between the ascension phase and the consolidation phase, where it is more about the current position and the privileges.

As the financial banking career is a rather young career type, I refrained from sampling a member of the cohort born before 1955. Therefore, I do not know enough to describe later career phases, such as the cooling-out phase.

Financial Careers

The financial career is by far the most successful career type. More than 75% reach middle management, and over 50% move to upper management. In addition, these moves seem to occur earlier than in other careers. This indicates that the financial career rhythm is more rapid than most of the other career types. The indicators of orderliness and loyalty, however, do not outshine the other career types. To the contrary, they are almost identical to the mean in both types of financial careers and seem to be rather good average than an explanative factor. Therefore, I postulate that it is the concentration on the financial functions, not the orderliness or the loyalty, that marks the origin of this success (see Chapter 6).

I have already pointed out that during the trial phase, business economists can choose among multiple entry portals.¹⁸⁰ The trial phase of the financial career is, therefore, not fundamentally distinct from that of the financial banking career. However, not everyone enters large-scale service companies, and, more often, entry jobs are characterised by a combination of financial tasks and general management. Typically, those who enter this

¹⁷⁹ This situation of not knowing if one still has chances or if one is already put in a backwater is, in my eyes, relatively typical for these engineers in this phase and also one of the reasons why they still hope to climb further.

¹⁸⁰ See the examination of the economist's function in the first job after graduation in the section on financial - banking careers (and in the section on technical - industrial careers for engineers).

career field become direct assistants to the directors or the financial directors and are then quickly assigned important tasks. Alternatively, they may begin in mid-sized companies, where the ways to the top are less standardised and perhaps therefore more easily attainable. The qualitative accounts suggest that the main sorrow of these career candidates during the trial phase is that they must remain generalists in a way that makes a move to general management still possible in a later career stage. They think that managerial competence is incompatible with a too deep functional specialisation, and that once they have “drowned” in specialisation, they are not able to become general again (see sub-chapter 8.3). In a way, they are the reverse companions of members of the technical-industrial career who draw inverse conclusions from the idea of incompatibility between management competence and functional competence. Even though the temporal length of the trial phase, due to the trial-and-error-like logic of the search process, is not very standardised, this type of career is characterised by a relatively rapid arrival at the “right” place.

Successful members of the financial career type are not very loyal to their firms but are very true to their financial functions. Based on this specific constellation, I postulate that the vertical rise in this cluster is essentially due to financial functions and their social meanings. It seems, for example, that this expertise qualifies the members of the financial career type to exert general management functions in higher positions. But what is the specificity of this type of knowledge compared to other types of knowledge? Financial knowledge is very standardized and therefore transversal or respectively transferable. Several members of this career type stated that they could apply their knowledge in different contexts and easily cross firm or sectoral boundaries. This makes financial knowledge an “individual” and “door-opening” knowledge that the actor easily can “take with him” without contextual losses. This differs greatly from technical knowledge, which is not only limited to the industrial sector but often also to the firm, within which the knowledge is built up in a slow and collective process. Second, the financialisation of the economy in the last decades (Fligstein, 2001; Williams et al., 2001) has enlarged the functional importance of finance and controlling. Financial experts are considered as the functionally most legitimate group to accede to upper management positions. In other words, financial functions are a substitute for much more general management functions that often include “business administration” in a broad sense. In order to corroborate this hypothesis, however, it would be important to more closely examine these processes’ hierarchisation and legitimisation of knowledge, preferably by ethnographic studies of firms.

Three elements may explain the particularly successful and rapid career rhythm during the ascension phase.

First, the transversality and the functional centrality of financial knowledge enhance the chances to rise vertically. This knowledge also constitutes an advantage over clinging technological knowledge, as well as over functionally less important transversal knowledge, such as marketing or human resources skills. This characteristic of knowledge opens the vertical and horizontal space of opportunities and permits this group to easily change firms or sectors. This can, in turn, exponentiate the hierarchical openness, as it allows members of this group to take a detour around situations that appear to block vertical ascension by moving to other firms or branches with not too much friction loss. Consequently, this facilitates positional shifts that others might consider too risky, because a return in more secure positions is always possible. In addition, as several interviewees have stated, this characteristic allows them to be more demanding and conflict-oriented in higher positions and to risk upper management positions, whereas people with different trajectories would typically refrain from conflict in order to avoid any downgrading or dismissal.

Secondly, as they do not generally work in large firms of the banking and insurance sector, their ascensions are probably structurally less canalised by internal career policies such as “recruiting pools” or specific programs and trainings for “potentials”. This also leads the career candidates to interpret their trajectories as very individual performances, rather than as the results of firm-specific promotion programs. In other words, because the career potentially leads across firms and sectors and because in the eyes of the actor it is not supported by any firm policies, the members of this career type perceive their successes—more than others, perhaps—to be the result of their personal talents and strivings.

Thirdly, this leads to—and, in later phases, reinforces—an aggressive and long-lasting maintenance of striving. In the middle of the ascension phase, these actors still seek to move further and successfully apply for further promotion. It is in this interplay between representations and structures that an early success leads to a corroboration of striving and finally reproduces success. Interestingly, across this kind of trajectory and because of an enduring striving, the career actors come to interpret their careers as products of their

individual characters, and they also tend to apply their career behaviour to their family lives (see sub-chapter 8.7).

Because of the small number of qualitative interviews with members of this group born before 1955, I refrain from drawing any conclusions about later career phases.

Small-Firm Career

As I previously mentioned in Chapter 6, the comparison of small-firm careers with other types of careers is problematic, especially when it comes to “success”. In small, often family-based firms, middle and higher management probably has a very different meaning than it does in large, international firms. If, for these reasons, the small-firm career plays a minor role in my theoretical explanations, it is worth noting that though it is not a very orderly career type, it is a loyal career type. Its orderliness (0.73) is, in fact, the lowest of all career types, while its loyalty (0.14) is only a little below the technical-industrial career type (see Chapter 6).

The trial phase consists, in this case, of experiences had in other small businesses or in the industry and the emergence of the idea that the things seen and learned during this period could be applied in the framework of an own business. Certain members of this career type develop (or re-discover) during the trial phase their “handicraft identity”, often times against the backdrop of an increasing aversion to industry and their organisation model (see sub-chapter 7.5). Contrary to the motivations of a “new business founder” who builds his or her company on an ingenious idea (Schallberger, 2004), the members of the small-firm career, in my sample, are, in most cases, already rooted in a milieu of small-independent entrepreneurs. They either take over a business directly from their father (or larger family) or claim to have been deeply inspired by the self-employment of their father and the lifestyle that was linked to this self-employment. In the first case, the qualitative accounts suggest that the moment of the takeover might depend more on the moment of abandonment on the father’s (or larger family’s) part than on the career development of the son. Second, the takeover is not always smooth because attendance at the oftentimes higher occupational school involves dissociation with the milieu of origin. For example, one of the engineers interviewed reported that when he took over his father’s plumbing business, his new methods and ideas were in stark contrast to the traditional, paternalistic leadership of the company (Interviewee #26).

The beginning of the ascension and consolidation phase, for this group, is directly characterised by the foundation or takeover of a business. Therefore, the temporal structure and the rhythm of the ascension and consolidation phase differs rather markedly from the same period experienced in a middle-scale or large-scale enterprise. In some ways, the ascension phase is shortened to the period of the founding, and, often times, the remaining years resemble a very long consolidation phase in which the main task is to steer the company through the economic conjuncture. Speaking about this period, however, the interviewees indicated that they structure it around several organising principles. Some work together with different partners during different periods, while others modernise and reorganise their businesses and distinguish these periods. Still others, while remaining owners in formal terms, change their functions within the enterprise and, for example, slowly retire from more “operational” tasks in order to turn to more “strategic” tasks. Further, the conjuncture and the involvement of the business in the changes that accompany it have an influence on the position of the business owners— especially in financial terms. None of the self-employed engineers or business economists interviewed had an explicit objective aiming at strategic growth of the business. As most of them are planners (or, in the case of business economists, personnel consultants), they identify with the functional competencies of their jobs and defend their “*autonomy*”, their “*independence*”, and the “*interest*” of their job against growth. Growth, in their opinion, leads to a loss of autonomy and to an increase in uninteresting administrative tasks.

Confirming the very general validity of the cooling-out phase, most of those pursuing a small-company career plan to retire incrementally by abandoning responsibility in several steps, of which the last is, in most cases, a consultancy to the successor. Cooling out means gradually handing over responsibilities, employees, clients, and material to the one (or sometimes the ones) who will carry on the business. Several of the entrepreneurs plan or already continue to, work in a reduced form after 65, and they accompany their successors if they are in need or for “special tasks”. The logic, however, is the same as in a large enterprise: in the last years, the owners are discharged of certain tasks and responsibilities, and, in return, they put some of their experience and knowledge at the disposal of the firm.

9.4 The Career Mechanisms

After having explained, where possible, how the interplay between structures and representations leads to the chronological unfolding of careers and differentiations into types, I would like to return, in this section, to analyses of different career mechanisms that are at work. As before, these analyses are based on the results of the empirical chapters, Chapters 5, 6, 7, and 8. I try to relate them to theoretical concepts, some of which I already presented in Chapter 2's theoretical model, and some of which have "emerged" as relevant during the research process: opportunity structures, types of knowledge, career anchors, and temporal order (such as critical junctures or irreversibilities).

Opportunity Structures

The opportunity structures, defined as the objective possibilities that are open to an actor (or the barriers that operate as constraints) at a certain moment in his trajectory, are crucial to the development of careers (Eisinger, 1973; Bruderl et al., 1993). They are important not only as *objective* barriers or channels, but also as *subjective* translations of the actors, who develop their own ideas of the biographically possible and often act along these lines.

A first important structural career sluice seems to be the *entry portals* (Spilerman, 1977: 560). In particular, the careers of the industrial engineers are mostly products of the reactions of the actors to the propositions made by the firms—the single entry portal in research and development (see sub-chapter 9.3). If in the very beginning of the trial phase an engineer thinks that his aspirations and forces match the offer of a research or production job—usually offered by firms—he is very likely to remain with the technical-industrial career type. If his aspirations do not fit the structural propositions, however, he must break out of the technical domain. This entails a major identity re-orientation and segues into either an industrial-management career or a service staff career. The entry portals for business economists are more various (see sub-chapter 9.3) and also have less influence on further career development. Some of the business economists suggest that early on they look for a specialised entry according to their interest—for example, in marketing or personnel—while the largest group seeks to find a preferable "generalist" entry—for example, in a small or mid-sized company (where all positions are generalist, in a sense), as assistant to the director, or in one of the large audit companies. None of these entries, however, automatically leads to a certain type of career or forces the actor to make a fundamental identity decision. Therefore, I

think that it is, *inter alia*, this structural openness at the beginning of a career that explains the subsequent success of business economists compared to engineers.

A second important factor is the internal structure of the firms in each sector. The accounts of almost all of the engineers in the technical domain suggest that the industrial sector is—increasingly in the last decades, I postulate—divided into a *technological* and a *commercial* universe. Partially, this division also follows hierarchical lines; the upper positions consist of the management, while the lower positions are technical. Independently of the question of whether this is a “real structural barrier” or only a “mental barrier” in the minds of the engineers working in these firms, it appears that this line cannot be crossed at will. Once it has been crossed biographically—from the technical to the managerial universe—it is difficult to re-cross in the inverse direction at a later moment. The large firms in the service sector are much more permeable in the minds of the career candidates (see sub-chapter 9.3), and shifts between different specialisations, such as marketing, personnel, or accounting, seem possible as long as the specialisation does not last too long and is not too deeply rooted.

Another structural aspect that touches, above all, the rhythm of careers is the organisation of work. It seems that in the technical industrial universe, the work is ideally organised in terms of *production cycles*, which are called “projects” by the engineers (see sub-chapter 7.6). A production cycle usually lasts three to five years and includes planning, development, and production. Usually, it seems that such cycles are conducted by the same team investing its entire labour force in only one project through the whole process, and engineers consider it difficult to either leave or join a project on the way. Therefore, their whole careers appear to be structured by the rhythms of the production cycles. Of course, so-called “projects” are also major organisation forms in the service sector. Nevertheless, it seems as if the term is used in another sense, as if, here, projects are more flexible and mobilise other norms. People can jump on or off projects and often have more than one project going at a time. In addition, the projects seem not to have the same ethical status as in engineering, and, therefore, all in all, have less of an influence on the structure of business economists’ careers in the service sector.

The *structuration of entry portals*, the *segmentation of firms*, and the *temporal structuration* of the processes of value creation are, thus, the three most crucial opportunity structures for achievement careers. The first—according to the “archeological principle” (De Coninck & Godard, 1990) that early events are more decisive than later ones—is important in the

beginning of the career, at the moment when the “direction” of the career is set. The two latter opportunity structures determine the structural possibility of changes of this career direction and the career rhythms during the trial and ascension phases.

Clinging and Door-Opening Knowledge

The analysis of objective trajectories suggests that success of financial careers cannot be explained solely by the particular pattern of loyalty or orderliness (see Chapter 6). To explain successful trajectories, I have, among other things, to recur to characteristics of financial knowledge (and its differences with respect to other types of knowledge).

Financial knowledge—and also, to a certain extent, staff-knowledge (personnel, marketing, or IT) is useable in almost all types of sectors and enterprises. It is not, as technical knowledge, bound to one or two specific sectors and a certain type of firm. On the one hand, I suggest this is due to the abstract character of management and accounting knowledge (Abbott, 1988: 102). In fact, the power or monopoly approach to professions (Freidson, 1970; Larson, 1977) postulates that different professions compete over tasks and seek to establish jurisdictions over these tasks (Abbott, 1988).¹⁸¹ Jurisdiction, in Abbott’s definition, is a legitimate link between an occupation and its work. In order to establish and defend these jurisdictions, among other strategies, occupations rely on the abstract character of their knowledge. An optimally equilibrate degree of abstractions allows occupations to claim that they know best how to deal with certain tasks (Abbott, 1988). In this sense, the differences in success levels between financial and technical careers (see Chapter 6) suggest that the business economists specialising in finance-related functions are more convincingly claiming that their knowledge is helpful to the management of a company, independently of the products and services the firm is producing and independently of the functioning of the firm. This is not just an abstract postulate and is very concretely reflected in the accounts of the interviewees with this specialisation, who, at almost every career moment, can imagine moving between very

¹⁸¹ Traditionally, the Anglo-Saxon sociology of professions puts “« liberal professions” » as physicians or lawyers in the centre (Freidson, 1970 ; Larson, 1977 ; Abbott, 1988). Managers, business administrators, or, in this case, business economists are not necessarily considered to be professionals in this traditional sense. It is doubtful if managers identify themselves as a proper group, with, for example, a professional association that defends their privileges and jurisdiction over certain problems. Nevertheless, management has certainly been professionalised over these last few decades (for example, by the increase of MBA-educations also in Europe) and it seems to me that management -knowledge is increasingly formalised, standardised, and taught as a corpus of abstract knowledge and know-how, quite comparable to other professions. For these reasons, I think it is legitimate to understand, for example, “controlling” as a profession with its own, abstract corpus of knowledge (see also Power, 1997).

different types of firms.¹⁸² This means that the *opportunity structures* for finance-related specialists are significantly greater than for other groups. Not only do finance-related specialists have better chances of moving to higher positions, they are also able to sidestep vertical blockades horizontally, by moving into other sectors or to other types of firms. Functionalist theories of knowledge and professions (Fligstein, 1987) postulate more or less the same. However, they do not see the dominance of a certain type of knowledge as a result of strategy or legitimisation of professional groups. In their eyes, certain types of knowledge—in this case, finance-related knowledge—are, at certain historical periods, functionally more important for certain forms of organisations. In this perspective, financial knowledge has functionally become more and more important, because the modern firm is increasingly held together by financial bounds and accounting-inspired policies of steering and control (Power, 1997).

Other types of knowledge are differentially positioned: staff knowledge as marketing, human resources, or IT might be equally abstract as financial-knowledge and useful in a series of economic sectors. Nevertheless, it is probably constrained by two factors. First, small and mid-sized firms with a lesser degree of organisational differentiation might not necessarily need marketing or personnel specialists. These functions can also be fulfilled by those with a more “generalist” job profile, such as directors or general managers. Second, it seems quite evident that in contemporary firms, financial functions are dominating the others in a hierarchical sense. Behind the CEO, the CFO is usually considered the second most important position and, in a majority of cases, CFOs are recruited from a series of finance-related managers (Fligstein, 1987). Therefore, despite equally dominant characters, a marketing specialisation cannot compete with a finance-related specialisation when it comes to promotions to upper management or general management positions. The technical specialisation seems to be more of a clinging type of knowledge than a door-opening knowledge. It can practically only be used in the industrial sector, and it is not legitimated as a type of knowledge that enables managers to manage firms. According to Abbott, it can be considered a highly formalised type of knowledge that only applies to a fairly limited subject area (Abbott, 1988: 102).

¹⁸² A business economist (Interviewee # 16) who all his occupational life worked in the human resources departments of banks his entire occupational life thought imagined — very seriously — about to changing to « industries » at the age of 45. Or, another business economist (Interviewee #13), at the moment and already for several years, currently an accounting and IT specialist, between accounting and IT (#13) fancies to moving to “ « human resources, why not ?” » . .

These hypotheses also mean that the choice of either a technical or a commercial apprenticeship—which, as I show in Chapter 7, is heavily influenced by the milieu of origin—is extremely important for career advancement. As the discipline chosen at the higher occupational schools depends directly on the choice of apprenticeship.¹⁸³ A technical apprenticeship leads to a rather slow and unsuccessful career for members of technical-industrial career and demands from the members of industrial-management careers an outbreak that will compromise their career chances. Because this decision has to be made early on, it is much more heavily influenced by the milieu of origin than other decisions. In contrast to the decision “to go further”, which, as I have postulated, most of the engineers and business economists consider as an *individual outbreak* and the beginning of dissociation from the milieu of origin, the apprenticeship choice is very often a part of the “*normal*” trajectory of the milieu. It is taken together with and under the implicit or explicit influence of parents, siblings, and friends and their conceptions of the normal and the possible. Therefore, it is not surprising that the decision to learn a handicraft is often a kind of imitation of the occupational engagement of the father. As banal as it sounds, this is one of the main explanations for social reproduction and points to the fact that individuals from more rural, traditional, and “manual-oriented” origins don’t go as high as climbers from already modernised milieus of employees. These individuals’ early choice of technical apprenticeship, as innocent it may be, already constrains their choices to rise socially in comparison to those who have opted for a commercial apprenticeship.

Career Anchors and Conceptions of Progress

In Schein’s terms, career anchors “*result from an interaction between the person with his needs and talents, and the work environment with its opportunities and constraints*” (Schein, 1971: 52). I have suggested that this matching between motives and structures is the result of a search process in the trial phase. This search process follows, more or less, a trial-and-error logic and can, therefore, be rather short for certain actors (for example, members of the technical-industrial career). For others, this match is not immediate; the search process is expanded and implies the crossing of structural and identity-related boundaries—and, not least of all, a transformation of the initial aspirations themselves (see sub-chapter 7.5).

¹⁸³ Unlike the high-school degree, which gives the graduate the possibility to chose – more or less - freely among almost all university subjects, the choice of the discipline at the HOS is restrained to apprenticeships with a direct link to it. In other words, it is necessary to have a technical apprenticeship in order to be accepted into engineering (or, for example, respectively to have a commercial apprenticeship in order to have access to the studies as a business economist).

Schein conceptualises career anchors as one single dominant career motive, somewhat neglecting the relationship between the different career anchors and the likely transformations of that relationship across the different moments of career (Schein, 1971). The qualitative data indicate that among engineers and business economists, several career anchors are always present: *striving for vertical ascension*, *striving for functional competence*, and *striving for autonomy*. If one of these three anchors can dominate during a career moment or during certain career phases, it seldom remains dominant with exactly the same force throughout the whole career. It is even very likely that in the course of the career, one anchor replaces another one as the most dominant. Typically, a striving for achievement and managerial competence is replaced by a striving for functional competence, according to the career type at an earlier or a later moment. While this happens very early for members of the technical-industrial career type, as I have shown (see sub-chapter 8.3), the process is rather slow and sometimes even hurtful for business economists in financial banking careers.

Career anchors and the nature of striving move along with the perceived opportunity structures in the course of the trajectory. I have met no interviewee who nurtured aspirations over a very long period that were in complete opposition to his structural chances to make a further career. The two are *loosely coupled*, with different distances at different moments of biography. It is possible, especially in transitional phases, that the reduction of striving lags behind the “objective opportunities”. The most illustrative examples are members of the financial banking career who still hope to stay “general” and “move further” in the middle of the ascension phase, but who are probably, in the logic of the firm, already treated as specialists with rather limited chances to move further. The interviews show that this “process of acceptance” can be rather difficult and slow, and therefore lags often temporally behind the “structural change”.

Career anchors and their transformations are important to understanding careers. Their evolution shows that careers cannot be conceptualised as a kind of structural and rational selection process of individuals with a substantially equal and biographically constant intention to rise vertically. *Striving is no “rational” anthropological constant, nor is it stable in the biographical process.* When the careers of engineers are less successful than those of certain business economists, it is also, but not exclusively, a question of opportunity structures and resources. It is a question of the nature and the goal of striving and the compatibility of

this striving with a deeper-anchored conception of progress, which hardly changes over the life course.

The example of the conception of progress shows that when a person comes to occupy a position, he or she also adopts or re-initialises discourses that correspond to this position (see sub-chapter 8.4). Engineers tend to identify and increasingly incorporate the conception that progress is based on technological innovation, and they very fiercely defend the organisational model that corresponds to this idea against alternative conceptions. Business economists, on the other hand—especially those working in large and modern enterprises of the banking and insurance sector—develop a model of progress and innovation based on efficiency and competition that requires a continual adaptation and reorganisation of work. These conceptions of progress and the corresponding optimal organisation of work, in turn, come to influence their career decisions and operate as mental constraints or opportunities. Most of the engineers seek to work in firms where they can reconcile their conception of ideal work with a contribution to the technological (and ipso facto *social* progress) with rather defensive strategies. Because most of the business economists adhere to a model of progress based on constant changes, they are also more open to personal change.

Critical Junctures and Self-Reinforcing Processes

The course of careers and the differentiation between several types of achievement careers is the product of an interplay between social structures and individual representations that manifests itself in the form of biographical process structures. This dialectic leads to biographical events, which, in later career moments, can become critical. The mechanisms explaining this can be resumed in terms of “critical juncture” and “self-reinforcing processes” (see Merton, 1968; 1988; Dannefer, 1987; 2003). Common to these concepts is the idea that once an institution or an actor is in a certain situation or possesses specific resources, this procures him “*successive increments of advantages*” (Merton, 1988: 66) during the biographical process. Whereas critical juncture refers to certain canals of passage (independently of the duration of this passage), self-reinforcing processes include more explicitly the temporal aspect. Not only the passage but the length of stay in a certain passage determines the outcomes, in the sense of a reinforcement or accumulation of certain resources or capitals. While either cumulative advantages or increasing incomes refer to the reinforcement of resources and are implicitly dependent on a one-dimensional hierarchical

conceptualisation of society, I propose, in the following section, to also apply the concept of cumulative advantages to representations and “functional specialisation”.

First, the differentiation of careers is the result of structural and mental “critical junctures” (Mahoney, 2000). Mahoney, who among others, fostered the term, explains that “*these junctures are ‘critical’ because once a particular option is selected, it becomes difficult to return to the initial point when multiple alternatives were still available*” (Mahoney, 2000: 513). Once an engineer has, for example, changed to managing or commercial functions, it is difficult to return to purely technical tasks. This can be due to the fact that a prolonged absence from the technical domain may result in the person “losing touch” with the latest technological advancements, which would make a return difficult or even unlikely. Or it might be due to identity reasons; a change from the technical to the commercial might entail some deep, identity-bound decisions, which make it unlikely that the person would switch back to the former identity (without, for example, a major structural pressure). In the last resort, it is difficult to say if critical junctures are structural or mental—in most cases, they seem to be the result of a mix between the two. People perceive certain passages to be irreversible and thereby confirm and reinforce structural junctures that were already in place (see sub-chapter 8.5).

The qualitative accounts show that two kind of critical junctures are of particular interest—first, the passage between technical and managerial functions among engineers, and second, the passage from generalised to specialised tasks among economists. Their functioning differs fundamentally, because they are differently coupled with chances for vertical rise. In the case of engineers, one must leave technological functions behind in order to realise a vertically upward rise. Thus, the critical juncture operates more like an *abstract menace* than like an actual structural barrier; engineers tend to think that a step in the managerial direction renders impossible a return to technical tasks, and, therefore, they shy away from managerial roles as an unnecessary risk. Thus, those in industrial management careers do have to abandon their technological identity in order to realise their dreams of a further vertical rise. In the case of business economists, once a person has sunken too deeply into specialised tasks, it is impossible to return to a generalist profile and to profit from the options that are available within a generalised role. In order to leave upwards opportunities as wide open as possible, the career candidates try to avoid passage through the critical juncture of specialisation.

These biographical irreversibilities are now always combined with reinforcing processes. These kinds of mechanisms—or at least the vertical variety of them—have been conceptualised in terms of the “Matthew Effect” (Merton, 1968; 1988), “cumulative advantage” (Dannefer, 1987; 2003), or “increasing returns” (Pierson, 2000). Merton defines these mechanisms as “*the ways in which initial comparative advantage of trained capacity, structural location, and available resources make for successive increments of advantage such that the gaps between the haves and the have-nots [...] widen*” (Merton, 1988: 606). Against an exclusively hierarchical use of the concept, I can imagine that these mechanisms do not only widen the gap between vertical status positions but also between specialists and non-specialists, for example. Once a person is engaged in a certain domain or a certain function, the structure of this domain or function will lead to a deeper specialisation, which makes the person, along the advancement of biography, continuously drift apart from persons who have not chosen this entry portal or pathway. Once engineers, for example, become engaged in technological careers, they get used to the work methods in this sector and acquire an occupational socialisation that corroborates their identity as technical engineers, therefore contributing to a further specialisation. Often, they say something like, “You know, I am now too long into this to change another time” (for example, Interviewees #16 and #18). This expression reflects the result of a slow process of familiarisation and sinking in, which is always the logical counterpart of critical junctures.

The results show, as well, that members of the most successful career types are those who attain middle or upper management positions earlier on, and the least successful careers are also the slowest ones (see Chapter 6). This indicates that there is also a certain correlation between the rapidity of career advancement and success. An early success is likely to be interpreted as an indication of future potential, which should be promoted further. Therefore, it is likely that these reinforcing processes also operate on a vertical dimension in the sense of cumulative advantage. Those who are thought to possess potential are immediately given more, while those who are not promoted in the beginning are considered not to have potential and are subsequently not promoted (Dannefer, 1987). Critical junctures and reinforcing processes with their structural and mental components are, therefore, at the heart of career development processes and career differentiation.

10. Corrosion of Achievement Career

10.1 Introduction

Now that I have discussed how structural and individual factors contribute to the development of the six types of achievement careers and which are the crucial mechanisms of career construction, I will examine how careers have been altered across the structural changes of the last decades, paying particular attention to the interpretations engineers and business economists make of the “economic crisis” in the 1970s and the 1990s. This part is also thought to “dynamise” the analysis and to address some of the methodological problems with cohorts and historical change that I have previously mentioned, specifically in Chapters 6 and 7.

However, this endeavour is not unproblematic because 1) change does not necessarily mean crisis, and 2) “general crisis” does not inevitably coincide with “personal crisis”. In more theoretical terms, a change in the structural foundation of achievement careers does not necessarily mean that the people pursuing such a career experience their situation as a crisis. And, inversely, when the people making careers have the impression that they are in an “occupational crisis”, this does not inevitably mean that it is due to rapid transformations of career structures. Therefore, I chose to approach “crisis” and its transforming influence on achievement careers with a cautious strategy. First, I describe which narrative patterns engineers and business economists employ to talk about change in the last decades. Next, I demonstrate how, from their perspective, these changes have touched their personal lives in ways that make them perceive these changes as a crisis. I then examine if and how they are concerned and develop a typology of affectations defined by the career phases in which they are affected, their career type (including the structures of opportunities in the moment of crisis and the biographical representations), and the strategies they pursue in order to react to the crisis. I implicitly postulate that the interpretation of and the involvement in the phenomenon of “crisis” hinges strongly on the career phase, the career type, and the biographical representations of the individuals.

10.2 Data and Methods

Data and Sample

As in Chapter 7 on “subjective careers” and Chapter 8 on “biographical representation”, here even though it is a conclusive chapter, I am working directly on the qualitative sample of 30 engineers and business economists. For details about the sample and potential problems and biases, please see the sections in Chapter 4 and 7.2 on methods.

Analytical Strategy

In certain respects, this chapter, also based on qualitative material, follows a mix of research strategies used in Chapters 7 and 8, specifically the temporal structure of crisis and the representations related to it.

The chapter does not focus on the whole biographical process with its beginnings, transitions, periods, and endings, but instead focuses on one (or several) specific biographical event(s): the potential and “subjective” economic crises (or “changes”, in order to remain on a more general level) that the interviewees experienced in their occupational lives. As in the approach of the subjective careers (Chapter 7), this approach also reconstructs the temporal structure and rhythm of the events with methods that are similar to Schütze’s narrative interview (Schütze, 1983). I am, therefore, interested in temporal categories such as the beginning and ending of crisis, but also in categories such as “before the crisis” or “subsequent to the crisis”. In addition, it will be interesting to learn more about the proper unfolding of the events. Are they perceived as one temporal unity, or do the engineers and business economists divide them into several sub-phases and periods? If so, what is the structure of these phases and spells? This temporal structuring may influence how engineers and business economists interpret the events and how they react when they face them. I also want to know if, in the subjective interpretation of the engineers and business economists, the change or the crisis is something that builds up slowly and steadily, or if they believe it to be a surprising and sudden event.

Second, I am also interested in the representations that are related to these events. Therefore, I work with certain sensitising concepts that were first presented in the theoretical chapter (Chapter 2) and which I have further developed and adapted in consideration of the empirical material in Chapter 8 dealing with biographical representation. At this point, I want to know

how, for example, the conception of time, the conception of progress, or striving interacts with the structural crisis. In other words, what are transformations and influences of these representations in a situation of rapid change or in a subjectively conceived crisis? In this sense, I use the biographical representations that I studied in a previous chapter and examine their transformations in greater detail when they are exposed to change or crisis. In addition, I also try to use further addition—on objective careers, for example—in order to better understand different types of involvement and reactions to change and crisis.

Methodological Difficulties

Unlike in the chapter on subjective trajectories, the parallel use of completed and uncompleted trajectories is not a major problem here. I am not dealing with a comparison between full trajectories and non-completed trajectories. Instead, I am comparing events that are temporally and relatively narrowly circumscribed and can be described by all the interviewees with retrospective narrations. Also, as the events occurred either in the mid-1970s or in the early 1990s, they are situated for almost all of the interviewees at approximately the same temporal distance from the moment of the study. Consequently, the problems due to the unreliability of autobiographical memory are less virulent in this chapter. I do not have to compare 35-year-old memories with 5-year-old memories.¹⁸⁴ The structural changes and crises are historical events that are experienced at more or less the same time by all the members of my sample. However, the members do experience the events at different biographical moments, depending on their cohort membership. It is, therefore, crucial to take into account the biographical stage of the interviewees, such as described in Chapter 7. At the same time, the biographical moment when the crises occurred is an integral part of the analysis and one of the major dimensions of comparison.

10.3 Interpretations of Change

Generally, the interviewees perceive their time as a period of quick and tremendous changes in terms of technology, mentality, organisation, or geography. When it comes to technology, these changes concern, in the first place, the digitalisation of work, be it with the introduction of personal computers, the introduction of CAD drawing, or the digitalisation of accounting

¹⁸⁴ Depending on the phase of the trajectory in which the crisis occurred, it is still possible that it is more intensively remembered by certain interviewees.. One business economist (Interviewee #15), for example, told me that on his first working day at a new bank, the post for which he had been hired disappeared for reasons of restructuring. Of course, he had a particularly lively memory of this moment and this period of restructuring.

and finance. There is virtually no narrative in which this evolution does not influence the work and lives of engineers or business economists. Second, the interviewees discussed changes of mentality. In general, the past, in these passages, is considered to be “*slower*”, more “*rigid*”, and more “*hierarchical*”, but also more calculable and more comfortable—more “*human*”, in a sense.¹⁸⁵ The organisational structures and the organisational rules constitute a third aspect that, in the eyes of most of the interviewees, changed fundamentally. Organisational boundaries are experienced as more flexible and vague today by most of the older engineers and business economists. At the same time, controls and rules are said to have been less strict in the past, particularly in the industrial sector. Finally, it is the system of geographic references that has fundamentally changed for most of those interviewed. Even if the bankers or engineers in large-scale firms are likely to be more directly affected by “globalisation” or “internationalisation”, it is a topic from which virtually no one can escape. The engineers and business economists have the impression that their work is more “international” nowadays and that they increasingly depend on evolutions in the U.S. (setting the major management trends), Eastern Europe (as competing countries with low salaries), India, or China (as a kind of distant menace).

Before and After

The narrative of the “*before*” and the “*after*” is central to almost all interviewees. This indicates that the change is considered to be an event that is temporally well localisable and separates two rather stable periods from one another. However, the terms “before” and “after” elicit different sentiments and stories. One version is the typical “golden past” rhetoric, while the other is the classic story of “development” and “progress”. In particular, older engineers talk of the “before” as an almost paradisiac time: the margins were higher, the work was “*freer*” and “*laxer*”, the level of constraining rationalisation low, and the companies quite diversified. An engineer in the cooling-out phase talks about the laid-back atmosphere that characterised the construction branch where he spent most of his occupational life:¹⁸⁶

Interviewee #1: I have the feeling that, in the past, we took it a bit easier. Also, among the people, the tensions and the performance motivation has never been as pronounced as [it is] today. Indeed, I can

¹⁸⁵ See also Honegger et al., « *Das Ende der Gemütlichkeit* », 1998.

¹⁸⁶ All these retrospective accounts of elder engineers and business economists have to be read with caution. As we know, the “before” also corresponds to biographical phases in which they might not have occupied positions with the same demands as those positions today. Also, it is possible that “reminiscence effects” lead to a more positive, retrospective picture of the past . (Reimer, 2001).

say that today we work more and more intensively. In the past, they would have never made that. They would have said, "Get lost, I'm going to the competitor".

According to this interviewee, this relatively "relaxed" and "easy" atmosphere was even reinforced by the fact that the prices were good and the business was strong. Those engineers who were personally affected by crisis especially have a tendency to interpret the past as a time during which positively paternalistic regimes enjoyed success. The industrial companies were owned and directed by traditional, industrial family clans who were rooted in the region and felt a certain responsibility towards their employees. They built houses for their employees, put sport facilities at their disposal, or even bought and closed local pubs in order to avoid high rates of absenteeism, as told to me by one retired engineer (Interviewee #14). These family-run firms also had, in the same sense, a long-term vision of business-making. If there was a depression, they tried, according to the engineers, to prevent layoffs, and they looked after their employees by giving them alternative jobs, for example, or by keeping them on despite short-time losses. The following account of a retired engineer (whose career was radically put into question when his firm underwent restructuring) describes the "good old times" in the following way:

Interviewee #14: This was a very decent firm. In those times, they still had a boss who was a "patron" (says it in French, as a German speaker). He said how it went, and when he said "no", then it was no, and when he said "yes", then it was yes. But these were still people who wanted to advance their company, who had long-term perspectives; they had sons and maybe thought, "He once can take this over". When it did not go very well, he took his responsibilities and did not put on the streets the people.

In the eyes of engineers, in these old times, the success and progress of firms was based on engineering know-how, risky investments in research, and the development of innovative and high-quality products. With this model, one engineer said, gains were made by the long-term identification of "rationalisation potential" and the consequent use of these comparative advantages over the competitors (Interviewee #18). In addition, the business relationships in these models were characterised by personal contacts and the careful nurturing of these contacts through activities that largely transcended business. Behind all of these anecdotes shines the image of a "human", "reasonable", and "warm" paternalistic capitalism.

Younger engineers clearly less often use this kind of distinction between the before and the after. Often, they entered occupational life during phases of restructuring and have no clear

vision of an idyllic golden age—transformations are just a part of “normality”. However, it is difficult to say if this is an effect of cohort or an effect of age. On the one hand, a particularly salient before and after scenario could be typical for a specific cohort of engineers who were rather successful during “les trente glorieuses” and then, in the autumn of their careers, were collectively downgraded by the crisis of the 1990s. On the other hand, it is also possible that this image of a “golden past” is a biographical narrative that is rather typical for a majority of men—or, in this case, engineers—approaching retirement and reminiscing about the first years of their career.

Business economists interpret the transformation formally in the same before and after terms, but they mean something substantially different. It seems that though most of the service sector underwent changes, the most expressive narrations of change are found in the banking and insurance sector, symbolically at the heart of the Swiss service sector (Honegger et al., 2002). Bankers perceive not so much the mergers and acquisitions of the mid 1990s but the Americanisation of Swiss banks in the mid and late 1980s as the central turning point. Before, they say, the work atmosphere was very leisurely, but the setting was strict and hierarchic. A banker of a now large, international banking institute speaks of a kind of ritualistic and almost absurd formality that manifested itself in strict dress codes and symbolic seating arrangements. The accompanying “*Swiss mentality*” included gentlemanly banking, a certain paternalistic protection of employees, and planning in a reflected and long-term perspective. E-mail did not exist at the time, so the lines of communication were also rather slow and relied, for example, on so-called memos, as Interviewee #17 describes. Furthermore, the former culture is described as “*order-oriented*” and passive; every move of an employee had to be backed by the permission of a superior. Finally, the large banks had a dense network of branches which were organised like “*small kingdoms*” or like “*a copy of the cantons in the Swiss federal state*” with very little centralisation, a rather weak internationalisation, and a rather limited power of the general direction. The entire banking and insurance sector, however, did not undergo the changes uniformly and at the same rhythm. Employees of a Geneva-based private bank claim that their institutes still breed the “*old spirit*” of Swiss banking. They highlight the familiar atmosphere, the mutual respect in the firm—“*we never scream at each other on the telephone*”—and the importance of internal recruitment, education, and rotation between different sub-branches. In other service branches, people see the change as less pronounced in terms of a before and an after, even though these neighbour sectors also adapted themselves. Just like the engineers, the younger business economists do

not have the same experiences or clear, uniform narratives of a before and an after. I postulate, however, that certain young economists also tend to construct a “negative past” with “slow” and “cosy” figures against a backdrop on which they are able to sketch their own strengths and abilities. However, this postulation is based on only a very few accounts, and I am not sure if this kind of construction is typical for the younger generation or normal for all young, hungry career candidates.

The mechanisms of change correspond quite closely to the two general narrative patterns. While engineers, mourning the loss of the golden past, see rather “*structural*” or “*systemic*” factors at work, business economists tend to give credit for the social and economic progress to the Swiss bankers and also to the “CEOs”, respectively members of the boards. In a certain way, they claim, as members of the middle or even upper management, to be the co-authors of economic success and the co-fathers of social well-being in Switzerland.

The engineers in the construction sector, for instance, blame a “*structural*” real estate crisis. In the late 1980s, the real estate “*market*” collapsed, and the construction firms sat on an overpriced portfolio of land, which led to massive losses. This “*dynamic*” then put the prices increasingly under pressure. An engineer at the head of a small planning firm stated:

Interviewee #4: And, today, we have to plan the double volume of realisation for the same money. This means if we deliver the same volume of services, we receive today, at most, half of the sales revenue. The prices in the branch of planning and engineering have massively collapsed.

This pressure on the prices and margins has led, in the eyes of the engineers, to an important concentration process. A large number of firms abandoned their businesses, employees were laid off, and several firms—especially the larger ones—were involved in merger-acquisition processes. In industrial firms, engineers think that recent change has been triggered by the “*liberalisation of the market*” or, alternatively, “*globalisation*”. They think that they are in competition with the whole world, not only with respect production activities but also concerning research and development activities. In their view, this increased competition puts into doubt the turnover and the gains of the Swiss industrial firms. In some cases—for example, in the telecommunication industry—public policies on market liberalisation, embodied in the General Agreement on Tariffs and Trade (GATT), dramatically changed the situation in the 1990s. In the eyes of an engineer working in this sector, this liberalisation sent the large-scale companies, who had split the market among themselves until then, skidding.

As a consequence, some firms had to shrink or close certain unities, while others merged, bought their competitors, or relied on internal restructuring.

In contrast, bankers or insurance employees speak of the changes in the 1990s as triggered by the CEOs and the visionary personalities on the board, who made the “*retrospectively* right” decisions. Even though the large mergers and acquisitions shaking the Swiss banking sector in the 1990s are also related, in the media, to the liberalisation of international service exchanges, bankers do not perceive them as a consequence of a menacing crisis expressed through terms such as “globalisation” and “delocalisation”. Rather, they see them as clever strategic decisions of the leaders, of Mister Gut or Mister Ospel. Even those who do not evaluate the changes as a positive tendency never conceptualise the mergers as a reaction to some “invisible force”, as do engineers in the industry.

The Organisational Level

These economic changes at larger structural levels lead to changes in the organisation of the daily work. The nature of these changes is quite similar for both groups. However, engineers and business economists evaluate them in opposite terms, because they have different meanings with respect to their ideal models of progress and work.

According to engineers, their work has been rationalised, intensified, and more and more narrowly controlled. The relatively loose controls have been replaced by rigid measures of accounting. The central virtue of an engineer, as several engineers in the mechanical industry complain, has become “*cost consciousness*”. According to the interviewees, this goes hand in hand with an acceleration of the work processes and an increasing relevance of deadlines. In addition, not only does everything have to be done in shorter time frames, but there also underlies a much more flexible work structure. One engineer, the head of a small planning firm, speaks of a “stop-and-go mentality”:

Interviewee #4: In construction today, it is “stop-and-go” [engl.], then they say we want this, we must immediately do this, URGENTLY and some days later: “Oh, we have a recourse, stop, cessation of the project”, and then at some moment they say, “Oh, now everything is settled, now we have to advance immediately”, because the deadline remains the same. As a result, the time of planning one reasonable would need is reduced to the half or a third and they say: “For the moment, we just do the necessary, in order we can start constructing and subsequently we will have a so called “rolling planning”.

Gentlemanly agreements between planner and construction firms are no longer acceptable and are increasingly replaced by contracts that are interpreted in very formal terms. In addition, new institutional actors emerge and become increasingly dominant in the planning and construction process. The so-called “general enterprises” are not effectively specialised and place much less emphasis on traditional and “professional” (meaning self-controlled by a group of experts) criteria of quality. In the industry, stock-market listings or purchases by international investors brought about new organisational structures. An engineer states that the position labels are now in English, and a matrix organisation has been introduced (Interviewee #16). The interviewees are under the impression that hierarchies are regularly changed, and instead of professional structures, people are rewarded with incentives or more flexible time schedules. However, as the owners can change quickly, these new rules and structures are subject to regular changes. Engineers complain that instead of long-term, counter-cyclical investment, new management often reacts to the difficult times with rigid austerity programs and a strict accounting-dominated control of expenses. Because of the accelerated ownership changes, and also because of the “technologically” accelerated production cycles, the price and the time schedule come to dominate the production to the detriment of quality. In the perception of the engineers, this is a fundamental change in the wrong direction. Instead of focusing on producing innovative, high-quality products—a strategy, in their eyes, that formed the epicentre of the Swiss industry’s success in the post-war period—time and price take centre stage. To this “*irresponsible*”, “*cowardly*”, “*accounting-dominated*” and “*wrong*” way of production, new, also accelerated career rhythms are added that discharge the now often non-technical managers from their responsibilities at crucial moments, when the projects or the products are not yet finished.

According to the business economists, the changes in the banking and insurance sector also lead to new forms of work organisation. It is, foremost, the acquisition of American business banks by Swiss banks¹⁸⁷ that coined the conscience of the bankers. In their words, the “Americanisation” brought about a new “*mind set*” (as one interviewee says in English) that differs fundamentally from the Swiss “*mentality*”. The work process is quicker and more intensive, and the working hours increase. In addition, Americans have begun to work later in the morning but generally “*work into the night*”. What is more, a new “*client-oriented*” or “*goal-oriented*” working style has replaced the “*rigid*” Swiss hierarchy. The new culture, in general, is described as a de-hierarchisation and as a de-formalisation of a fossilised and static

¹⁸⁷ First Boston was acquired by the former “Schweizer Kreditanstalt” in the early 1980s; the “Schweizer Bankverein” bought “O’Connor & Associates” in 1992 and later “Warburg”, respectively “Dillon Reed”.

situation. Employee initiative is now encouraged, not everything is strictly controlled, and “*errors are allowed for*”. This opening of the culture is also reflected on the symbolic level: “*Half of the associates of the X-Bank came in sneakers and without ties to the first reunion*”, says one employee of a large bank, emphasising the tremendous changes occurring. Also, the so-called “*American culture*” is said to be more academic in comparison to the Swiss career culture, where internal promotion of non-academics has been traditionally widespread. Others, who might see these changes from a more critical angle, deplore the increasing dominance of short-term thinking, short-term planning of business cycles, and “*hire-and-fire policies*” that encourage engaging people only in the short-term and quickly dropping them when a depression is on the horizon or stock market quotations call for visible signs of restructuring.

10.4 From Change to Crisis

Even if the structural changes of the 1990s are also “personal changes” for engineers and business economists, the involvement can differ widely—not only in structural terms but also in terms of interpretation. According to the career phase and the structural position, the same “changes” can be perceived as “individual chances”, “ameliorations”, “necessary evils”, or a “veritable crisis”. Being unemployed or having passed through a period of unemployment, for example, can be transformed symbolically within a couple of months into a personal resource and strength in a rapidly changing world full of uncertainties.

A crisis is defined as a “crucial or decisive point or situation” and in its economic or social meaning as an “*unstable situation, in political, social, economic, or military affairs, especially one involving an impending abrupt change*”. However, not all of the above described structural transformations and their individual translations imply an “unstable situation” or an “abrupt change”. Even though, narratively, the interviewees have a tendency to utilise a rather condensed and analytic comparison between “before” and “after”, it is likely that these transitions often resemble a slower process. And what is more, not all of the individuals interviewed interpret these changes as a crisis in the sense of a problematic situation. Furthermore, certain engineers and business economists really are confronted with major individual crises (unemployment, downgrading) *without* their firms being affected by structural crises. In these cases, the personal crisis may be the consequence of an

incompatibility between individual aspirations and structural opportunities, or even the consequence of an individual conflict.

The “Factual” Face of Individual Crises

In the following lines, I will present what has happened “factually” to the engineers and business economists. This section is based on the information included in the qualitative accounts. It gives an overview of all of the difficult situations with which the interviewees have been confronted. It is very likely that other situations exist which are not included here.

First, due to mergers and restructuring, certain individuals become *unemployed* for a shorter or longer period. Unemployment, in all cases, is experienced as a “traumatising” period. In the standard male trajectory, and especially in achievement careers, such an event is never attended and surprises those who are concerned. It seems, however, that after a phase of “shock”, the engineers and business economists came to interpret their respective periods of unemployment as a chance for psychological reassembling or as an occasion to explore one’s wishes and expectations. Of the three interviewees who experienced such a period, two sought to escape unemployment by becoming self-employed, while another re-evaluated his aspirations and found a job in a large retailing company.

A second group of people are potentially threatened by unemployment but manage to anticipate the transformations by *changing the enterprise*. These changes can go along with a formal—or at least informal—downgrading or a change of functional orientation. In one case, for example, the firm was re-organised by outsourcing, and the concerned engineer was transferred—not happily, but finally with his consent—to the newly created firm, which continued to put its services exclusively at the disposal of the former “mother firm”. Such downgrading and marginalisation can be experienced as a crisis, as it is in opposition to the aspiration for an upwards move. The individual interpretations, however, also heavily depend on the career phase in which the concerned person finds himself (see below).

However, downgrading also occurs within firms if individuals do not change firms. As a result of new structures, new positions, new hierarchies, or new matrices, employees are *downgraded* in firms. For structural reasons, it is clear that those who have already achieved a certain position are more threatened than those who are still in lower positions. One engineer, for example, was, for a long period of time, simultaneously “*team leader*”, “*project manager*”,

and “*senior* engineer” before, in the course of a restructuring, being reduced to “*senior* engineer”. He experienced this change as a personal defeat, not so much because of the reduced salary but because of the downgrading in terms of prestige and position. Even though he was not particularly aggressively striving upwards, his perception of the ideal career was strongly challenged by this forced step back.

But more subtle consequences are at work. Certain people sometimes retire their career plans because they are confronted with an increasingly *insecure organisational situation* or because the future pathway they wanted to adopt is blocked by mergers or restructuring. For example, one business economist states that his firm periodically undergoes restructuring or sometimes enters periods of reinforced “cost-consciousness”. According to this economist, during these periods, the employees of the firm generally just “freeze” because they fear that a move out of their current positions is risky. This can lead to an abandonment of a career perspective and a turn towards a more family or leisure-centred life, for example. Still, it is quite possible that those who are not directly affected are concerned by the potentiality of their affectation. This *pressure* might lead to anticipations or to a changing of plans and actions out of fear of being laid off, and an individual might opt for security instead of a high-aiming but risky career step.

Not in all cases do the structural changes, commonly dealt with as “crises”, have consequences on the individual level that are interpreted as “personal crises”. On the contrary, some of these individuals see crisis as a career opportunity, or they may take part in structural changes as designers and are, thus, responsible for the changes. One personnel manager in a large telecommunication company, for example, was asked to handle the layoffs and recruiting during a critical phase in which the company was split, partly disintegrated, and partly sold and re-built. As is often the case, those responsible for this restructuring were able to “*surf the wave*”. For others, the restructuring opened pathways that seemed temporarily blocked, or their resources adopted a whole new value in the newsituation.

10.5 Types of Crisis Across Careers

How do these individual crises emerge? How do they condense into typical situations, and which strategies do the actors develop in order to overcome them? In order to respond to these questions, I would like to develop a reading grid that enables me to better understand the

typical configurations of involvement in crisis. My analysis is based, in this case, on the dimensions of “nature of involvement”, “career phase”, “career type”, “structures of opportunity”, “biographical dispositions”, and strategies”. However, this reading grid is only a kind of auxiliary product of analysis. It does not correspond to a real typology that explores all of the logically and effectively possible constellations that are mutually exclusive (Kelle & Kluge, 1999).

The Threatened

A first group of interviewees are not directly affected by one of the above-mentioned syndromes of personal crisis. They have neither been laid off, nor have they lived through a period of unemployment or been hierarchically downgraded. However, they also work in a context where restructuring, mergers and acquisitions, or “downsizings” are in the air, and, thus, they feel indirectly threatened. Many reckon that it is just a matter of time before their companies or their unities are affected by the changes, and some even only narrowly escape layoffs. A 35-years old business economist explains such a situation in the following account:

Interviewee #22: In the beginning, a year after I started there, my boss had to reduce posts, to lay-off. But he told me, that there were two scenarios. A bigger one where he would have to dismiss 8 or 9 and a smaller, where it would have been 3 or 4. If it would have been the bigger one, I would have been on the list and he told me this when I was on holiday in Italy. I was quite upset there. So, in any case, there are anxieties. It then was the big scenario, but with one less dismissal, I was on the bottom of the list and did not have to go. I could stay, but it was quite a quake.

The generalisation of restructuring leads to a situation in which potentially all interviewees are conscious that such a crisis could also affect them. The fear of crisis is ubiquitous. Even a business economist working in the public service sector (Interviewee #2) does bother about his future and participates directly in the fate of friends and colleagues who are more directly affected.

The common denominator of this group is their career-phase: they are relatively young, between 30 and 40, and at the beginning of their ascension phase. This means that they have already found their career anchors in most cases. On the other hand, they are still on relatively low levels in the hierarchy, for example, as leaders of research teams or as heads of staff of research unities in large banks. This has a series of significations and consequences. First, for this group, there is no real “before”. Their occupational period before the depression of the

1990s was not long enough for them to develop a clear vision and a deep enough attachment to something that could now be threatened. Because of their relatively young age, they have not yet acquired a high status or privileges that could be lost. This also means that they are not yet in appropriate positions to profit from crisis as surfers. However, their career projects, their long-term visions, and their future security are threatened. Even though they conceive of their biographies in very incremental terms, there is an expectation of security and an expectation of a relatively stable trajectory. This kind of situation is not specifically linked to one career type. It concerns both engineers and economists. In my sample, it seems to be slightly more frequent in career types that occur within large enterprises and that are directly supported by organisational structure.

Such general but latent threats of position, even though they require no immediate action or re-orientation, lead, nevertheless, to defensive tendencies. The concerned engineers and business economists have the impression that they ought to protect themselves—and often their families—against potential future involvements. This can take the form of a retirement in a less competitive, less demanding position with more regular schedules and a more comfortable daily work environment. An engineer, for example, explained that he left his position as a team leader in a wire factory that recently merged with a smaller company.¹⁸⁸ Even though he could maintain and even slightly improve his position, the merger meant, for him, a large amount of stress, overtime, and insecurity. Therefore, he then decided to transition to a more traditional, family-owned firm without stock-market listing. Here, even though the occasions for further upward mobility are limited, he enjoys a more “comfortable” job, less stress, and more regular hours. Similarly, a business economist who has worked for some years in a highly volatile banking milieu recently accepted his “specialisation” in the IT sector of a traditional private bank and has partially given up his upwards ambitions.¹⁸⁹ Even though he sometimes feels a little bit like a “*public servant*”, he is proud to be a part of this bank, which functions in an “*old school style*” and tries to close in its employees with a whole series of internal educations and opportunities. Both the engineer and the business economist have sought a certain protection and have traded the possibility to climb higher for this protection. Apparently, aspiring for higher positions also means exposing oneself to more risks, while a retirement into functional specialisation is hoped for as a certain protection against the hazards of economical crisis. In some cases, this retirement is also linked to a reinforced focus on family life.

¹⁸⁸ Interviewee #19.

¹⁸⁹ Interviewee #22.

The Broken

Not surprisingly, the “broken” are rather severely affected by the economic depression of the 1990s. They find themselves in biographical and organisational positions that have transformed this crisis into a serious threat to their personalities and the privileges they have accumulated throughout their occupational lives. The broken are mainly technical-industrial engineers, but, in some cases, they are also technical management or small-firm engineers who have been downgraded, assigned new tasks, forced to change companies, or even dismissed. Often, these changes arrive, from their point of view, very abruptly and very surprisingly, and they shake up a whole world of security and normality. However, the involvement often transcends mere downgrading or unemployment. These people have a more general, existential impression of being under pressure, of being socially devaluated as a group, or of no longer fitting into the current world.

Interviewee #4: I have the impression that there have been quite some shifts, yes. The esteem has decreased and surely a massive price pressure. And above all the question, especially if it is general enterprises: is this [his engineering expertise] really necessary? We don't really need a planner, do we? We can construct without a planner, can't we?

Not only does this engineer feel devaluated, but, sometimes, he and his work are even treated as “useless” or obsolete. Bourdieu called this the Don Quichotte effect: the values, abilities, and knowledge acquired in a former period becomes senseless and futile because new rules and mechanisms have been established in the meantime (Bourdieu, 1979). This can lead to bitterness and the feeling that one's knowledge and abilities are no longer needed and are steadily devaluated, symbolically and monetarily. In the interviews, this group of engineers waffled between the hope that the actors of the new paradigms would “recognise that they are on the wrong track” and social insults, such as “Räpplispalter” (penny-pincher), “Pfeife” (duffer), or “*Abzocker*” (someone who is ripping-off¹⁹⁰), directed towards their enemies.

This type of involvement is narrowly restricted to a specific career phase and type. It involves elder engineers, 45 years and over, in a technical-industrial career or in a technical management career. Small-firm engineers are not often downgraded or dismissed, but they face symbolic and economic pressure from their firms. Because of their age and the amount of

¹⁹⁰ Especially used in the current Swiss public debate as an insult to denounce either those who profit unjustifiably from social service money or top managers who pay themselves exorbitant salaries or “golden parachutes”.

time they have spent in their firms, these engineers have a very clear image of the “before” period and generally evaluate it as “*better times*” and more performing than the present period. As I have shown in Chapter 8, they develop a rather solid conception of how value should be created in the Swiss industry and assign themselves a crucial role as keepers of quality in this model.

For structural and dispositional reasons, the strategic alternatives of this group are rather meagre: they are bound to the industry in general and to the technical domain within the industry in particular because their technical knowledge is not very easily transferable to other domains. This is not in the least due to their typical biographical representations (see Chapters 6 and 7). During the trial phase, they acquired a solid identity as technical engineers, and by their striving towards “functional competence” and “interesting tasks”, they have de facto excluded ambitions to change into more managerial or administrative functions. This functional orientation is reinforced by the strongly technical understanding of progress in which an outbreak of the technical domain equals almost a running over to the enemy. As a result of these structurally and dispositionally deep roots, neither functional side-steps (into human resource management or marketing for example) nor a further rise is conceivable.

With their opportunity structures so strongly constrained, it is no wonder that a majority of their strategies are defensive and sometimes even fatalist in nature. I distinguish first a simple wait-and-see strategy: some just bitterly accept the downgrading or the functional transfers and sometimes—ironically—wait for the next reorganisation, which might bring about an improvement in their situation. In a certain way, they try to draw a profit from the steep acceleration of the rhythm of restructuring, which was initially the reason for their critical situation. One particular sub-strategy arises from the specific career phase and the legitimate options it normally offers to the concerned: it is simply to accept the downgrading or the functional transfer on a factual level but to interpret it on individual terms through an unorthodox use of the cooling-out phase.

Interviewee #14: And within the firm X, I had nothing to say any more, three others had the say (laughs). Then, yeah, I was almost 60. I said to myself, yeah, what do you still want? Grin and bear it. But, indeed, I still could collaborate a lot with my old colleagues at the firm Y; this was still possible.¹⁹¹

¹⁹¹ This engineer, at the moment of the interview, had been retired for some years. Very possibly, such relatively direct accounts on one’s downgrading are more likely to be obtained from people who have a certain distance from their occupational livesfe. Maybe the tendency to mask forced downgradings as a natural career phase is

This strategy consists of masking the “forced downgrading” as a “*natural*” and “*normal*” step back from the rat race, as it is practised in the framework of voluntary and mutual cooling-outs.

One engineer who lost his job in the higher management of the telecommunication industry chose to become independent just ten years before his retirement. For industrial management engineers who, across their trajectories, have simultaneously acquired engineering and managerial knowledge, becoming self-employed is quite a likely strategy in the face of crisis. This could mean that the increased self-employment rate, and, to a certain degree, the increase of small firms—often celebrated as the advent of a new generation of innovative and dynamic entrepreneurs—is simply accessory to the financialisation crisis of the 1990s. For some of these engineers, becoming self-employed signifies revenge against those who are responsible for their dismissal.

Interviewee #12: If you would have asked me before if I wanted to become self-employed, I wouldn't have done it, never. I slid into self-employment. Retrospectively, it is clear that it's fun, with the success and all that, I could have done it at least 4 or 5 years earlier, that might have even worked better. What suits me today, of course, is that the public administration is reduced and the workload remains the same. This is wonderful for me. I just have to pick up the work.

This engineer's most treasured challenge is to “*show them*” that he has been wrongfully dismissed and, in this way, to demonstrate (across the financial and general success of his newly-founded company) that his technical vision of value creation is still superior to the short-sighted financialisation conception.

The Surfers

The group I call “the Surfers” is, although in the eye of the hurricane, not “suffering” from the structural changes. For this group, the crisis turns out to be a major career chance. Some members of this group profit from the opportunities created by restructuring. They represent the dynamic, fresh, and unconsumed young generation who is able to replace the managers of the “old school”. Or they are even the ones who are charged with organising and conducting the restructuring of a specific firm. This function—if the restructuring is successful—can be a

even more widespread among people who currently suffer from such downgradings and are still in the process of coming to terms with them.

major springboard for positions in similar processes of restructuring and also in companies who are looking for particularly “*dynamic*”, “*flexible*”, and “*ruthless*” managers. In contrast to those who are threatened or rolled over by the restructuring, these people are “surfing the wave” and manage to seize the opportunities that are also created in these situations.

In contrast to the assumption that in situations of economic crisis, it is always the young upcomers who “win” and the old ones who “lose”, the surfers can most aptly be described as “not too young and not too old”. In terms of career phases, they have already found their career anchors, are at the beginning of the ascension phase, and are still striving. They are advanced enough to be in positions of responsibility. In most cases, it is these people who are assigned the task of organising the restructuring, the dismissals, the recruiting of substitutes, the dislocation of the firm, or the merger with another company. One of the interviewees I consider to be a surfer is, for example, director of human resources for an important branch of a big bank.¹⁹² In this position, he was an important agent of the “company culture” of the dominant firm in a merger and was therefore promoted in order to spread this culture among the representatives of the subordinate firm. Another surfer interviewed was a financial vice director at a catering company in the beginning stages of restructuring. Because the merger required creating a common accounting system, a common controlling system, and a common payroll system, he quickly became “Mister Merge”, a kind of staff role with a special responsibility to bring the merge to a successful end. At the same time, it is important that in this ascension phase, the individuals are still striving for higher positions within the organisation. From his personal perspective, the aforementioned human resources director experienced the merger of two large Swiss banks in the middle of the 1990s as follows:

Interviewee #17: Well, I would say, I was almost 40, not even 40, and I still could convert that and adapt myself. I was energetic, and I had my networks and career ambitions, and others have been 50 and they had problems with adapting. This was a huge thing.¹⁹³

I have shown that crises affect virtually every economic sector, even though the specific form of expression may vary. Therefore, surfers are spread across different career types, although within certain limits. It seems that technical-industrial careers and small-company careers do

¹⁹² Interviewee #17.

¹⁹³ Of course such a retrospective explanation is problematic. It is probably also a sort of a “common sense” explanation (by more or less legitimate causes such as “age” or “networks”) for a process that at the moment he experienced it was very difficult to master and understand individually. Also in these moments, it seems that HOS engineers and business economists have the tendency to explain their success by their personal will (=striving) and performance. Success, in contrast to downgrading, is not explained in structural terms.

not produce surfers, either because their position in the technical domain excludes them or because small companies are not differentiated enough to distinguish between winners and losers. All other career types can, in principle, bear surfers. The most predestined functions seem to be either financial tasks or positions in human resources management. The first, with the increasing dominance of accountability as an organisational principle, becomes “naturally” one of the key functions in a number of reorganisations. As restructuring always means to dismiss, to recruit, and to re-assign tasks, human resources departments become another “hot-spot” of restructuring activities and, therefore, offer a particularly good opportunity for profiting from restructuring (Buss-Notter, 2006).

The surfers, therefore, have the resources to organise the restructuring or to profit from the reforms. This means that they have functional skills that fit particularly well with the needs of restructuring and that they occupy positions which make their superiors believe that they are able and willing to seize the opportunities offered. As I have discussed, the expression of a continual striving (at an already advanced age) seems to be a precondition, or at least an advantage. Yet, only in certain types of careers is a continual fidelity to the initial striving possible and widespread. In addition, this people should not constrain themselves by images of potential or by de facto irreversibilities. To adhere to a financial vision of progress and innovation, which favours regular and radical reorganisation in order to constantly be at the top of the competition of ideas, is not only a condition but also a result of surfing. People who organise or profit from reorganisation and restructuring quite automatically come to accept and actively defend the ideas of financial vision of progress. The biographical strategy is simply to take the “chances” that are offered. As surfers are still eager to climb and advance, the change often does not really include a major change in terms of their personal attitudes and strategies. They already wanted to rise and now—in their eyes, fortunately—have been given this chance. Sometimes, in order to win the “best people” for the restructuring in the framework of so-called “closing-in policies”, firms even offer financial incentives to attach the surfers to the company in a middle-term perspective.

The Icaruses

For all of the cases of individual crisis I presented to date, the link between the structural changes of the 1990s and the personal involvement was quite evident. However, a series of cases in my sample cannot be linked to the structural crisis in the same way, even though an indirect link might exist. Because of the conspicuous similarities of these cases, I decided to

present them as a specific type. I will call them the “Icaruses”, according to the mythological figure who wanted to fly too close to the gods and paid for his foolishness by plummeting into the sea when the sun melted his wax wings.

The Icaruses are affected by a sudden dismissal, which is then often followed by a period of unemployment. The crisis is not necessarily due to a restructuring or a downsizing of the company. More likely, it is—at least in the interpretation of those who experience it—the consequence of a “*personal conflict*” or of a “*too aggressive and boisterous*” striving. In other words, these crises are not seen as caused by structural events or dynamics, but as the result of very individual and personal aspirational behaviours. One business economist, for example, joined the executive board of a middle-scale company in the tourism sector and, as he explains, had trouble from day one because of his demanding and aspiring character:

Interviewee #8: I joined them and then at the first management board reunion we had a dispute, because I asked why the computer-system broke down at this day, twice, and they told me that it was none of my business and then I said: hey...but sorry, there we have a problem.

Retrospectively, he interprets these problems, which very quickly accumulated to a major struggle that led to his departure, as having been caused by his individual behaviour:

Interviewee #8: I don't know yet. I did not have the impression that I maybe came with the attitude that I still was the boss and then I reprimanded them or I don't know what. I didn't have the impression, but after that, I did not have a very good feeling.

Even if this interpersonal struggle is perhaps triggered by structural tensions or problems, Icaruses finally look for and find an explanation in their own behaviour. By contrast to other types of involvement, they have thus no concept of an enemy, such as engineers have in the form of “*penny-pinchers*” or “*international investors*”. Neither do they feel threatened by an impersonal force, such as “*globalisation*” or “*the market*”. This kind of personal crisis is typical for people who pursue aggressive and individually-oriented careers across different firms and branches. They do not remain loyal to a single firm and do not profit from internal career policies, such as traineeships, “*promotional pools*”, or “*high potential programs*”. Therefore, it is probably most widespread among the financial career type. Because financial functions, which are easily transformable and transposable, seem to be the best suited to migrate across different firms and to aspire aggressively, at the same time, for a rise. However, it is also possible among those in industrial management careers who are aiming at

upper positions without being supported by promotional policies of firms. This combination can also create this very individualistic upwards career, which is pursued *without* or even *against* organisational structures. For these people, the crisis occurs mainly in the ascension phase, when they already occupy middle or higher management positions. It is only in these positions, apparently, that “personal conflicts” can quickly become a question of “all or nothing” and can subsequently lead to separation or dismissal.

It seems that these individuals rely very little on organisations and are only marginally categorised, labelled, and stamped by organisational programmes. They are relatively open. Their way, so far, has often been rather erratic and characterised by radical and abrupt changes, so no structural regularities have come to constrain their imaginations. In addition, their financial knowledge or management knowledge does not restrain them to one specific economic sector or function.

Their biographical representations are characterised by the maintenance of a very vivid variety of striving and an openness which is not constrained by representations of normative career rhythms and normative sequential orders. A business economist describes his philosophy in the following way:

Interviewee #8: I also asked myself why I always chose other branches. I just recognise, damn, life is too thrilling that I would want to stay always the same. Sure, I could imagine too to go to work to Zurich. However, there are enough people who want to make careers and I recognise this. I would have to limit [myself] to 2 years and after 2 years I can quit again. Because, hey, I don't fit there, I would put people back up finally.

As they conceptualise the crisis as a genuinely personal one for which they take an individual responsibility—having been too demanding, too aspiring, and too aggressive—it is not surprising that their reaction strategies, once they are under the impression that they are experiencing a crisis, consist of *work on themselves*. An engineer in a technical management career, for example, said that during his unemployment crisis, he had been thinking intensively about himself and reading “*more books than ever before in his life*”. In response to my question about what type of book he had been reading, he answered:

Interviewee #5: ...mainly biographies of personalities from the economic and political domain, economy and politics, such as Konrad Adenauer or Helmut Kohl or Jack Welch, the former CEO of General Electric and such stuff, yeah, yeah...

This psychologically-oriented search for inspiration among successful personalities is typical. A business economist with a similar agenda began psychotherapy and now consults, from time to time, a kinesiologist in order “*to open his knot*”.

In general, an Icarus projects the image of a de-contextualised skipjack who, following a personal conflict at work due to his “too aspiring behaviour”, becomes unemployed, then works intensively on his character and personality, and then finds a new job. Often times, the positions Icaruses aim at after a crisis are a little bit more modest. Their strategies of research are rather defensive. One engineer who had been CEO of a small telecommunications company found a new post as a middle manager in “the technical domain”. A business economist who had been director of a large NGO opted for a smaller and less media-covered company in the same sector. Often, they look for something that is closer to their initial education, a place where they feel more “*at home*” and where they “*know the rules*”.

10.6 Factors Explaining Crisis

Following the general analysis of change and crisis, I can now draw some conclusions about their parameters, mechanisms, and strategies. It first appeared that the morphology of a career crisis is heavily dependent on the career phase in which the individuals are finding themselves. Second, crises are associated with certain career types. However, it cannot be argued that there is a complete congruence between crisis types and career types. Thirdly, I postulate that strategies in the face of crisis strongly hinge upon the biographical representations the individuals involved have built up during their careers.

Phases

According to a simple linear conception of biographical involvement, the older a person is, the more likely it is that he or she has become conservative, attached to the status-quo, and, therefore, at odds with new tendencies. Inversely, the younger a person is, the more likely it is that he or she is receptive to new ideas and, therefore, able to benefit from reorganisations. Against these beliefs, the results show that age has no explicative value. Only biographical phases and the typical positions that the individuals occupy in these stages can explain how

people are affected. Because the crisis did only hit rising careers in the 1990s within a relatively limited time period, I can speak of a phase-specific involvement.

These career phases are linked to certain structural opportunities and biographical representations. First, these phases—and, therefore, age-specific positions—procure specific decision powers in the firms. Those who are not yet in middle or upper management positions at the moment of restructuring simply have no chance to become surfers of the crisis because they lack the required influence and power. At the same time, it seems that they have not yet achieved substantial rights or privileges that would lead to the development of a conception of progress opposed to the new ideas. In a certain sense, they are maybe still “malleable” and have the potential to identify more easily with new ideas because these could be used as a resource in a competition struggle against older competitors (who maybe too deeply incorporated certain ideas and ways of thinking during their occupational socialisation). The people in the beginning and the middle of the ascension phase, by contrast, possess a combination of already higher positions and a still active striving, which seems to be the ideal condition for becoming a surfer of the crisis. The will to become a principle actor of restructuring is even an expression of striving in and of itself, because it is through this kind of engagement that people often rise to upper management positions in the firm or are propelled to such positions in other firms.

People who already find themselves in the consolidation phase, or even in the cooling-out phase, are the most severely concerned by the crisis; they have few chances to reinvent themselves and to radically change their conception of progress, as it has become engrained in their minds during their long years of service. Secondly, they have privileges (material and statutory) and prestige to lose. However, they also have career-phase-specific strategies at their disposal, enabling them to dampen the psychological effects of potential downgrading and dismissals. Specifically, they have the potential to interpret these forced shifts as an almost “natural” cooling-out process, a pattern of interpretation they are offered by the cultural models of achievement careers, which foresee such a stepping back from the rat race in almost every sector and type of career.

Structures and Representations

A person’s perceived opportunity structures and the biographical representations he or she has developed at the moment the crisis emerges play an important role in the individual

perception of the change. The best way to demonstrate these effects is to compare technical-industrial engineers in their mid to late careers with business economists engaged in financial careers.

In the case of a dismissal or a downgrading, technical-industrial engineers have only a few possibilities, structurally, to escape or detour the situation. They are bound to the industry by their knowledge and are often also bound to the places in which they live—because of their families and their integration into a specific community, they do not want to leave. In addition, from very early on, they have adapted a technological identity, which is steadily developing and reinforcing itself, making an abandonment of the technological work unimaginable. Simultaneously, the long evolution within the same firm and often around similar projects and products also creates ties with the firm and the profession as a collectivity, which stands against very individualistic transitions into another domain.

Members of the financial career type, on the other hand, have learned to jump from firm to firm, independently of economic branch or type of firm and based solely on their abstract financial knowledge, which can be applied to a large number of different situations and companies. These trajectories have created a very individual career habitus and a certain openness to change, which allows them to choose alternative career pathways when they are dismissed or threatened by downgrading.

Strategies

The strategies the engineers and business economists pursue in the moment of crisis are influenced by cultural norms of career. They aim at the maintenance of an upward, incremental, and orderly trajectory in a difficult situation. In other words, they try to individually reproduce the achievement career despite its structural foundations becoming more and more eroded. When their ideal career images are threatened or when they are put in “irregular career situations,” they try to re-establish their cultural models of career. Structurally, they try to avoid illegitimate and deviant downgrading or illogical mutilation of career. Psychologically, they try to recreate an orderly picture of their careers by bending downgrading or dismissal into the shape of “career normality” and, in some cases, by re-constructing their striving and aspiring personalities by psychological work on the self.

Let me first consider the structural side. Those who feel threatened by the crisis without being directly affected by it often opt for a more regular and secure career rather than continuing to strive for a quicker and higher rise. They change into more traditional departments of the same firm, to a smaller firm with a more traditional and familiar structure, or just remain in their positions instead of daring to make a risky but potentially rewarding “side step”. In the eyes of these young economists and engineers, a shift in a more modest but also more secure direction offers protection against career disorder, and they are willing to surrender the possibility of attaining positions in upper management, which, in any case, is a very vague promise.¹⁹⁴ In this sense, the career crisis might dampen the willingness to take risks and increase the tendency to prefer security over success. A last resort in the face of a menacing downgrading is the founding of an own firm. For members of the industrial-management career type, this strategy is envisagable, not because they perceive themselves to be natural-born entrepreneurs, but because this seems to them the only possible way to go on without falling into long-term unemployment or having to take a hierarchically lesser job.

Psychologically, if downgrading is really inevitable, and if there are no alternative structural possibilities available, the individual can still re-interpret his situation and transform it into “normality”. An example, here, would be engineers in their late consolidation phase who use the possibilities put at the disposal by traditional career norms in order to re-establish normality. The individual and psychological work on the self—reading biographies or undergoing psychotherapy, for example—is another strategy that protects one from the consequences of crisis, re-establishes one’s self-image of a striving and ambitious personality, and prepares one to take up a career again. This strategy can include the re-interpretation of unemployment as a “sabbatical” or as a “*natural phase of personal re-orientation*” and can even lead to a transformation of the crisis into a future resource—for instance, the passage through a major biographical crisis is sold to future employers as the ability to steer through the stormy winds of contemporary capitalism, where restructuring and crisis are daily business.

¹⁹⁴ In some cases, this stepping back is related to a more family-centred life style.

11. Conclusions

The goal of this conclusive chapter is to summarise the main results of this study. I will, therefore, first sum up the stages of achievement careers, the types of achievement careers, and the career mechanisms. I will then discuss the relationship between the family and the career and the involvement of the engineers and business economists in the crisis of the 1990s. In the three last sub-chapters, I will deal with several methodological issues: the inadequacy of French categories, the articulation between quantitative and qualitative methods, and, finally, the limits of the approach.

11.1 The Stages of Achievement Careers

The qualitative interviews revealed that HOS engineers and business economists divide their careers subjectively into five stages: “awakening”, “moult phase”, “trial phase”, “ascension and consolidation”, and “cooling-out phase”. These stages correspond to distinct functions and dominant mechanisms and contribute decisively to the development and differentiation of the trajectories.

For the engineers and business economists, to make an achievement career is rarely a child’s dream, or something “*one always wanted to make*”. Because of the pressure of the milieu, in a first step, the future career candidates usually pursue a very “*normal*” trajectory. They seem to reproduce their parent’s social position by choosing an apprenticeship either in the technical or the commercial domain. It is only through confrontation with “*ravaged*” or “*primitive*” figures that they see as possible negative projections of themselves in the future, through role models from outside their narrow social milieu, or when becoming aware of the potential dullness of the “*normal*” occupational life that they develop a striving and finally dare to “*break out*” from their milieus of origin. This breakout is symbolised by the decision to attend higher occupational school in order “*to go further*”.

The higher occupational school is then in the centre of the moult phase. In this stage, it is important for the career candidates to confirm and validate their ambitions by succeeding in the military service, by going abroad, or by learning new languages. These are signs that the striving is serious, and they allow the career candidates to prove to themselves and to their

social environment that their ambitions are real and serious. Simultaneously, however, the moult phase is a period of dissociation from the milieu of origin and of identification with a group of fellow climbers. Career candidates dissociate from the lifestyle of their parents and former friends, sometimes depart geographically from them, and often find new friends in school and quickly develop a common attitude based on the “*hunger for more*” or the “*will to perform*”.

Probably the most decisive period begins with the first job subsequent to graduation from the higher occupational school. It is during this trial phase that the course of the career is set by a search for the fit between the individual aspirations and the promises inscribed by a job. Depending on the earlier or later matching between these two, the career candidates have to decide between large-scale and small companies, between functional competence and management, and respectively between specialisation or general management. At the end of this trial-and-error guided dynamic, most people have found their “career anchors” (Schein, 1971) and enter the ascension phase.

In the ascension phase, people try to move upwards, the majority by using the career ladders of companies and a small minority by the use of what I have called “carousels”. While some of them rely almost exclusively on internal organisational mechanisms, other more individualistic pathways lead across firms. Not automatically, however, the first one can be considered a loyal trajectory and the second one a disloyal trajectory. In most cases, this ascension phase rather “silently” flattens in a person’s 40s and leads to a consolidation phase with a reduced upwards striving and the upcoming of strategies aimed mainly at the maintenance of a specific position.

Only towards the end of their careers do the engineers and business economists move through another transition. As a result of the traditional “gentlemen agreement” between the firms and the employees, people with long years of service in the firm are granted a smooth cooling-out, and as a quid pro quo, they put their knowledge and experience at the disposal of the firm. This implies the development of a new symbolic contract between the firm and the employee and aims at a dignified transition to retirement.

This subjective division of the achievement career should not be mistaken for a conscious plan of the actors, which is guiding them through their careers. It is a reconstruction by the

researcher, composed of the subjective evaluation of the actors at different moments in their careers. Nevertheless, these five stages are more or less common to all achievement careers. All in all, the qualitative accounts suggest that they have not fundamentally changed their meaning and functions across cohorts. However, this outcome has to be interpreted with caution, as I lack information on later career phases of the younger generation.

11.2 The Types of Careers

Despite the division into five stages, the factual occupational trajectories of social climbers can vary considerably. There is not one but several “achievement careers” that resemble, more or less, the ideal type I have drawn in the introduction (Chapter 2). I have developed a multi-dimensional career typology based on the economic branch, functional unity, hierarchical position, and the size of the enterprise. They distinguish themselves in terms of orderliness, loyalty, and success, and they create different articulations between family and career, as well as different conceptions of progress. Specifically, I distinguish between financial banking careers, technical-industrial careers, service staff careers, industrial management careers, small and middle-firm careers, and financial careers.

Financial banking careers are limited to financial functions in large-scale banking and insurance institutes. They are almost exclusively pursued by business economists and characterised by a combination of high orderliness and high disloyalty. They are akin to the “pure” financial careers whose trajectories are even more concentrated on financial functions but lead across different economic branches and firms. By far, the financial career is the most successful and most rapid career type. On these two dimensions, it is diametrically opposed to technical-industrial *careers*. This type of trajectory, almost exclusively pursued by engineers, does not quit the narrowly technical realm and is therefore the slowest and the least successful of all types. Whereas almost all of its members reach the level of technical or lower management, only very few go further to middle management or upper management. At the same time, it is the most orderly and the most loyal type of career. This is slightly different for the engineers in industrial management careers. The members of this career type leave the purely technological domain and are subsequently significantly less loyal. In return, however, their career’s pace is quicker and they are considerably more successful, even though they are not as successful as those in financial careers. *Service staff careers* change often between economic branches and types of firm. They remain, however, within staff functions, such as

personnel, marketing, or IT. The members of this career type are relatively successful. They are among the least orderly, but they are also relatively loyal. Finally, *careers in small and mid-sized firms* develop within the universe of small companies in the construction branch. Not in the least because of the differing organisational structures, these engineers quickly move to relatively high positions or become self-employed. While the loyalty is relatively high, these careers are not very orderly.¹⁹⁵

The most instructive comparison is between financial and technical-industrial careers. These two types are opposed in terms of success and career rhythms. They produce distinct types of thinking and acting, which have been revealed in the qualitative interviews. They develop very distinct conceptions of progress, and they also have different ideas about career rhythms and order.

The comparison to the ideal typical picture of the achievement career I drew in Chapter 2 reveals most sharply the heuristic power of this typology. It shows that the technical-industrial career corresponds most closely to the picture of a loyal, orderly, and incremental career, such as is sketched in accounts of the “organisation man” in the 1950s. Hence, it is one of the slowest and least successful careers. The financial career, on the other side, does not really correspond to the ideal type of achievement career. Nevertheless, it is a very successful pathway and seems to be becoming the “new achievement career”.

11.3 Career Mechanisms

By combining qualitative and quantitative methods, I was able to work out a series of career mechanisms and to describe the interaction between them in detail. It appears that careers cannot be reduced to one single, linearly operating mechanism, such as processes of cumulative advantage (Dannefer, 1987; 2003). Instead, careers are differentiated by specific patterns of sequentially interlocked structural and representational mechanisms. To understand the specific interaction between these mechanisms, it is necessary to situate them along the career phases and to cast a specifically close glance at the phases in which the mechanisms are particularly dense and rich in consequences.

¹⁹⁵ The last two career types are of lesser interest to me—: service staff Careers because of their somewhat residual character. Small- and middle- firms careers, are not typical for the modern achievement career, which is supposed to unfold in large-scale companies.

Astonishingly, one of the major career decisions is made at a very early age and is closely controlled by the milieu of origin. The choice between a commercial and a mechanical apprenticeship¹⁹⁶ is a first step of the course, which—despite the individual breakout and seemingly uniform development during the moult phase—will “re-emerge” in the trial phase. In steady confrontation with the structural opportunities, it is in this phase that the decisive “career anchor” is developing. This implies reflections on one’s own identity (am I a “handyman”, a “manager”, a “small-business-guy”, a “banker”, or an “industry-type?”) and how this identity fits with the offers of the labour market.

Once the decision for a specific career anchor is made, the course of the chosen pathway is determined by the organisational structures of the sector or the firm in which the trajectory is leading. The results of Chapter 9 suggest that the structuration of entry portals, the segmentation of firms, and the temporal structuration of the process of value creation are of particular importance. The technical sector and the service sector distinguish themselves by the number and the structure of the entry portals. While 80% of engineers begin in research/development or production, the distribution of functions is much more dispersed for business economists. The deep segmentation between management and technology in the Swiss industry then becomes a career barrier for technical engineers and is one of the foremost reasons for their lack of “vertical success” beyond technical management. The comparatively larger structural diversity and openness of service companies—for instance, of banks and insurances—directly contributes to the successfulness of financial management careers. Finally, it seems that technical work is more closely linked to long-term projects and therefore promotes rather slow and long-term career moves. In comparison, business economists are also morally less bound to specific projects and choose their career steps more individually and flexibly.

However, I postulate that the specific knowledge inherent to either engineering or business administration also crucially decides career chances, even though I could not directly observe the mechanisms at work. Technological knowledge is of a rather “clinging” character, while, in the contemporary economy, financial knowledge is “door-opening” knowledge. Financial knowledge is more fungible and transferable than technological knowledge. In this respect,

¹⁹⁶ These are virtually the only two types of apprenticeship that lead to higher occupational school. In addition, as I explain in Chapter 9, there is no free choice of discipline; those with a technical apprenticeship must attend studies in engineering, and those with a commercial apprenticeship are constrained to business economics.

the comparison between industrial management careers and financial careers is particularly telling; while the former are restricted to the industrial sector, the latter enjoy enhanced ascension chances because of the greater openness and fungibility of financial knowledge.

In addition to and in combination with elsewhere observed mechanisms of cumulative advantages, mental biographical reversibilities, respectively irreversibilities, are of decisive importance to the career strategies of the actors. The images they have of the “biographically possible” and the “biographically impossible” determine strategic appropriations of structural opportunities. Critical junctures, for example, dominate the ideas of the career candidates and corroborate, in this way, possibly existing structural barriers. The same is true for mechanisms of cumulative advantage; often more than a structural accumulation, the idea that a certain period spent in a job or a position is determining leads to a positive or negative accumulation of capital or a certain way of thinking. For instance, business economists working in large banks and assurances, typically think that a period too long spent in functions of specialisations leads to a “specialisation of the mind”, transforming itself into an obstacle to a subsequent change or return to generalist functions.¹⁹⁷

11.4 Achievement Career and the Bourgeois Family Model

Authors such as Widmer et al. (2003) demonstrate that the modernisation of family structures is slower and more modest in Switzerland than in other European countries. They speak, in this context, of a “modernised traditionalism” where, after a family phase, the women return to the labour market, but the majority only to part-time employment (Widmer et al., 2003).

How can engineers and business economists be situated in relationship to this general trend, and what do these potential changes mean with respect to their occupational careers? In Chapter 5, which explores economic and social changes, I also examined the transformation of the family situations of engineers and business economists (sub-chapter 5.5). The analysis, which concentrated on the educational levels, employment statuses, and employment rates of marriage partners of HOS engineers and economists compared to other social groups and over three age groups, did not yield any conclusive results. It seems that their situation is very similar to that of spouses in the “average population”. Their situation is neither particularly egalitarian nor particularly inegalitarian. Confronted by this situation, what have been the

¹⁹⁷ Finding themselves in this case are Interviewees : #13, #21, and #22.

strategies of engineers and business economists? Apparently, couples do not react to only one strategy, but to a combination of different strategies. First, the female partners of engineers and business economists are more often employed part-time than the average woman. Secondly, above all, business economists tend to postpone their marriages and are also over-proportionally concerned about separation and divorce. The example of engineers, however, shows that these two reactions are not necessarily related to achievement careers, as only the younger cohorts of engineers postpone their marriages and the divorce and separation rate of engineers is not only clearly lower than the economists' but also lower than that of the population as a whole.

Based on an optimal matching analysis, a typology of family trajectory, including the “conjugal situation” and “parental stages” dimensions, was developed. It resulted in a typology with four types, distinguishing themselves mainly by the moment of family starting: “marriage, very late children” (21.0%), “early marriage and early children” (24.2%), “single, very late children” (30.9%), and “early marriage, late children” (23.9%). In Chapter 6, I tried to relate this typology to the career typology developed in sub-chapter 6.3. I employed a correspondence analysis, a two-way contingency table, and a multinomial regression. While the first suggests that there is a link between slower and less successful career types (such as technical-industrial careers) and early family starting with an equally early birth of the first child, further analysis indicates that this link is statistically insignificant. The regression analysis shows that the family type is related to cohort membership; especially in older cohorts, early family startings are overrepresented compared to the middle cohorts and even more so compared to the youngest cohort.

Finally, I tried to approach the relationship between the occupational domain and the family in the qualitative part (sub-chapter 8.7). This analysis cannot shed more light on the potential link between certain career types and certain family types, based on the conjugal situation and the parental status. However, it gives us some hints—because of the partially lacking material, not always very solid—about the strategies with which engineers and business economists articulate work and family. It suggests that behind the same or similar formal arrangements in respect to participation in the labour market hide different approaches to family. Two alternative models to the potentially conflictive separation between family and career have been identified; in particular, successful economists with a prolonged ascension phase tend to rationalise their family and to consider it a project, which they sometimes “manage” with

methods they use in their occupational lives. On the other hand, younger engineers who quickly find their career anchors in the technical-industrial career and who structurally have to reduce their ambitions, do, in rare cases, subordinate their careers to their families by re-shaping their interests in accordance with what they perceive to be the needs of their families.

11.5 The 1990s—The End of the “Gemütlichkeit”

Historical categorisation is problematic. Very quickly, one is tempted to define “periods”, “phases”, “ruptures”, and “thresholds”, and to rigidify history into handy and essentialist conceptions (Foucault, 1981). In recent times, “les trente glorieuses” is probably the most prominent example of such a narrowing division of history, which is not only functionally over-generalised but also culturally and socially over-generalised. Considering the outcomes of achievement careers in Switzerland, it appears that, with this category, history is divided in recourse to almost exclusively economic aspects, the situation of France is taken to be valid in all Western countries, and, in tendency, the industry is confounded with the economy as a whole and with blue-collar workers as the totality of social classes.

The groups under investigation in this study have hardly been affected by the depression of the 1970s, not even those who at that moment should have been in the eye of the hurricane—for example, those in the machine industry.¹⁹⁸ Not only was the Swiss economy affected in a very selective way, but social classes and gender groups probably experienced this rupture in the 1970s in very a different way. The depression of 1974/75 has hardly affected the pharmaceutical industry, and it gave the starting shot for a sharp and quick development of the service sector, which formed the basis of the worldwide success of Swiss banking conglomerates in the 1990s. Most crucially, the 1970s hardly affected male, Swiss career candidates in the primary labour markets. They did not experience unemployment, casualisation, noticeable closure of their chances, or sensible changes in their biographical work orientation.

In all of these respects, the 1990s were different. I have both statistical and qualitative evidence that the Swiss career candidates were seriously shaken during this period. Unemployment increased sharply, the Swiss banking system experienced an epochal

¹⁹⁸ As mentioned in the chapter on economic and social structures, the crisis in the 1970s mainly affected immigrant workers and women.

earthquake, some of the very traditional and emblematic firms of the Swiss industry were split up and sold, and economic growth was seriously slowed down. Not only blue-collar workers but also top managers lived suddenly in uncertainty; all of the interviewees at least know of one colleague or friend who stumbled seriously, and a large number of them even experienced their own crises. Therefore, the crisis of the 1990s is qualitatively different from the one of the 1970s. Institutional analysis of the Swiss economical field indicates that the relatively stable Swiss company network between industry and banks has been broken up by a turn towards a more financial and shareholder-oriented capitalism. Mach, for example, explains, “This new era of capitalism implies the transformation of the management of companies, within which the criteria of financial efficiency have become the basic principle of functioning of enterprises” (Mach, 2007).¹⁹⁹ This “financialisation” or increased “shareholder-value orientation” corresponds to a transformation of the model of creation and distribution of value. At the same time, this new model of corporate governance leads to a new organisation of achievement careers in Switzerland.

This means two things. First, the periodical conceptualisation of Swiss society should be detailed in the future. Maybe not the depression of 1974/75 but certainly the crisis of 1991-1994 is the relevant caesura that put an end to the “Gemütlichkeit” of the post-war era (Honegger et al., 1999). Only at this moment were the upward-oriented middle classes—the emblem of the openness and progress of the “Wirtschaftswunder”—profoundly hit, initiating a transformation of biographical habitus and biographical strategies. This temporally narrow window of crisis now allows for a precise characterisation of the involvement of different cohorts and types of careers. As Elder has demonstrated in his study on the Great Depression, in such situations, the cohort can become a highly relevant characteristic that divides individuals who, in other respects, occupy identical social positions into situations that will largely influence their future trajectories and positions (Elder, 1995).

11.6 Threatened, Broken, Surfers, and Icaruses

The fact that the structural crisis in the Swiss economy is temporally narrowly circumscribed makes a *cohort* one of the main categories that enables an understanding of how people are affected by changes. However, it is combined with other factors, such as career types or career phases.

¹⁹⁹ Translated by F.B.

Indisputably, those most heavily affected by the crisis are older technical engineers in the ascension and consolidation phase and either engaged in a large industrial company or self-employed in the construction sector. Their career rhythms have considerably flattened, they are not interested anymore in further upward moves, they want to stay in the technical sector, they have no real alternatives, and their technological logic of innovation and progress has become very solid over the years. In most cases, they are looking for a secure and foreseeable career, they have a family, they have a house, and they are solidly integrated into their communities. In this situation, they are all, without exception, alienated by the changes. The new model of creation of value is opposed to their views. This results in “personal crises” when they are affected by unemployment, declassified, or simply confronted with a declining general respect for their knowledge, vision, and occupation. This is a deep alienation, a situation of discrepancy between an initial habitus and new structures, and a radical devaluation of biographical knowledge. I observed several strategies of reaction to this situation. Some just fatally try to sit out the situation—for example, disguising their malaise by interpreting it as a kind of natural cooling-out phase. Often, this included some change of function—for example, in a strictly technical department. Others—those who were not only downgraded but laid off—dared to venture into late self-employment.

For finance or personnel-oriented business economists in the middle of the ascension phase, the crisis was potentially the most beneficial. They were in their trial-and-error phase—not yet too deeply specialised but able to occupy at least a middle management position. And they were not too old, meaning that they were still striving, not already converged or disengaged. This also means that, in addition to a habitus open to change—particularly for the financial specialist—they had, structurally, a large spectrum of alternatives available. Therefore, they were hardly affected by unemployment. For them, the mergers and acquisitions, as well as the restructurings, particularly in the banking and insurance sector, constituted an opening of the opportunity structure. They took it either by becoming responsible in the organisation and transactions of the reforms or by aspiring to occupy new, more promising posts that had been created directly or indirectly by the crisis. The first strategy demonstrates that not everyone working in a sector or company severely affected by the structural crisis slips into an individual crisis; in some cases, these surfers are also the gravediggers of their own companies, who, by closing them down, accumulate a capital of crisis management, which very often proves to be valuable once the last shovelful of earth is tossed upon the coffin.

The youngest cohort knows no “before”. No occupational habitus affected by the crisis could really develop and solidify within this group. Therefore, the crisis and the new values and ways of creating economic value cannot enter into conflict with or threaten something that exists. This is not only true in terms of a way of thinking but also in terms of position. In contrast to individuals in the consolidation or cooling-out phase, these people have not yet attained upper hierarchical positions (which can be lost); they often have not created at the moment of the crisis a stable environment (which could be threatened); and they often have not yet entered the ascension phase, so there is not even a concrete career project which could be threatened. On the other hand, these people, still in the trial phase or at the very beginning of the ascension phase, are not eligible to organise or profit from the selective opening of social space brought about by the restructuring of the 1990s.

11.7 The Inadequacy of “French Categories”

The French debate on the “nouvel esprit du capitalisme” is focused on the de-categorisation and individualisation of work by an erosion of social statuses. Swiss sociology, in my opinion, sometimes exports these explanations too light-heartedly to the Swiss context. Switzerland is not a very “statutory” country, and the bureaucratic organisation of large-scale companies cannot be interpreted as an imitation of the functioning of public administration. The privileges granted to certain groups of employees in career terms are rather the result of political struggles between workers and capitalists in the 1920s, which were then reinforced by the defensive paternalism that announced the coming of the Second World War (König et al, 1985). Or cast a glance at the reform of the educational system in the wake of the war. Instead of democratising the university curricula (“let us enlarge the group of the privileged and give a higher number a higher educational status”), it focused on the extension and improvement of the higher occupational schools (“let us strengthen those from the bottom who want to climb by assiduity and performance”). In addition, those who make careers in Switzerland are particularly hostile to status and status-based privileges. They are characterised by a solid anti-intellectualism, by a rejection of theory and abstract knowledge, and by a hearty despisement of those who occupy positions without constantly proving that they deserve them based on their performance. This is why, even when their positions (their statuses, in a way) are seriously threatened by structural crises, they pain to protest against this with recourse to their “rights” or “statutory prerogatives”. Instead, they insist on

alternative interpretations of performance or by re-interpreting seniority, for example, as a specific form of performance.

De-categorisation of work is not a conscious, verbalised, or even politicised problem of engineers and business economists. Neither is the contraction of the promotional space—if this phenomenon effectively exists—perceived as a problem by those who make careers. It seems that the biographical schemes of career are sufficiently open and temporally flexible to incorporate such changes and interpret potential career tailbacks as “normal”. What is clearly disturbing, and also subjectively interpreted as such, are the firms’ new policies, which could be called “financial rationalisation of career management”. In order to optimise the shareholder value and to send powerful and straightforward signals to the stock market, organisational structures are regularly swirled up and kneaded, be it by merger and acquisitions, by so called “reorgs”, or simply by the closing of units and the dismissal of employees relatively independent of their education levels and status. It is, in a way, a direct attack on those “gentlemanly” collective awards that parts of the modern middle classes were granted in the 1920s. From a shareholder’s point of view, these are irrational, wrongly protective, and paternalistic, and they must be abolished. Without doubt, this leads to an increasing number of structurally “broken ladders” (Osterman, 1996).

This has been accompanied by a deindustrialisation of Swiss society that was radicalised in the 1990s. General deindustrialisation is a rather abstract phenomenon, which, in the heads of most, is probably more present as a statistical number than as a real experience. However, for those living in formerly strongly industrialised areas or for those working in the industrial sector, it is a very concrete life experience. Similarly, however, what remains in their minds is not the shrinking sectoral share of industry in the Swiss economy, but the “deindustrialisation within industry”. The past is interpreted by these engineers as dominated by a “technological logic” and a successful “engineering professionalism” that are now threatened by the intrusion of the radically different “economic logic”, with rhythms adapted to the stock market (not to the needs of the project or the product), with a clear separation between the technological and the management, and the replacement of courageous investments in technological innovations with a spirit of nitpicking “accountability”. This corresponds to a frontal attack on Swiss engineers and their understanding of career, success, and creation of value. This is one of the reasons for the radical involvement of the engineers by the depression of the 1990s.

11.8 The Articulation Between Quantitative and Qualitative Methods

In the social sciences, the choice of a method should never be biased by a particular sympathy for a method or past routines. The tools one employs must be the best ones in order to answer the research questions (Kelle & Erzberger, 2001). Therefore, as I have described in subchapter 4.3 on methodological advances, in this study, I use a combination of quantitative and qualitative methods. At two specific moments of the research process, such an articulation seemed particularly promising to me²⁰⁰—during the sampling process and during the data analysis phase.

By inverting the “traditional” model of articulation between quantitative and qualitative methods, such as formulated by Barton and Lazarsfeld (1954), I used the results of a first quantitative analysis as a grid for the qualitative sample. In other words, the typology of careers resulting from the optimal matching analysis became the most important dimension of comparison of the qualitative sampling plan (Kelle & Kluge, 1999). “*By contrast to the theoretical sampling, the size of the sample and the criteria of selection are here determined before and the data are analysed only after the inquiry*” (Kelle & Kluge, 1999: 46).²⁰¹ As is typical in such sampling plans, the criteria consist of “static” socio-demographic variables, such as gender, origin, educational level, or occupation, and the particularity of the present approach was to use “trajectory types” as the main criteria. For the qualitative sample, I chose three to six individuals within each career type. Looking back on this choice, I think that it has revealed itself to be promising. The wide variety of occupational careers have been well reduced to a rather small number, and the qualitative interviews do, therefore, cover well the field of the possible *with respect to the occupational careers of HOS engineers and business economists*. Even though I cannot discuss the exact proportional distribution of engineers and economists over these types, the most important, theoretically focused career mechanisms and causalities can be better explained.²⁰² However, I think the selected procedure contains two problems. First, the qualitative sample is based on a trajectory typology that theoretically only covers occupation-related dimensions, such as branch, function, position, and firm size. Other

²⁰⁰ For an overview for all the moments of integration between quantitative and qualitative methods and the different models within which they can be integrated, see: Kluge, Susann, 2001.

²⁰¹ Translated by F.B.

²⁰² The aim of all sampling procedures and decisive for the reliability of each sample— this also means quantitative sample— is not the representativeness as such, but the “absence of theoretically relevant biases” (Kelle and Kluge, 1999: 38; see also, for initial reference,; Zetterberg, 1965). Exactly in this way, qualitative sampling procedures are valid and equivalent to quantitative sampling procedures, based, for example, on the idea of “representativeness” .

theoretical dimensions, such as family-related ones, do not enter into the sampling plan and are not systematically covered. Therefore, one of the reasons for the absence of systematic contrasts in the data on family could be due to this sampling asymmetry.²⁰³ Secondly, the criteria of career type have, in a second step, been completed by further criteria, such as cohort-membership or branch. Unfortunately, it has proven to be problematic to combine trajectories and age as sampling criteria, in particular because trajectories are always also age-related (respectively, cohort-related), branch-related, or gender-related. This means that the combination of trajectories with traditional socio-demographic criteria leads to redundancies, which, in addition, are not always easy to control. It is, for example, difficult to say if within a rather young trajectory, the researcher should also choose “older members of this younger trajectory”, or, to the contrary, if he or she should choose younger members, as they are more representative of that trajectory type.

For the theorisation of achievement careers and their changes, the articulation between quantitative and qualitative in the analytical phase is even more crucial than the integrated sampling. Kluge and Erzberger distinguish three different constellations between qualitative and quantitative results, with each requiring different methods of integration and leading to different conclusions. These are convergence, complementarity, and divergence. The constellation of convergence could also be called “mutual validation”. In fact, the underlying idea is that two types of data—quantitative and qualitative—are collected to understand specific phenomena. Convergence refers to the situation when these types of data then lead to the same conclusion and corroborate the validity of the theoretical assertion—going beyond the validity that either of the single methods would have produced. As the present study has been conceived with a complementary design, very few such constellations appeared in the analytical phase. Substantially more important is, thus, the complementary constellation. Here, the researchers use different methods—quantitative and qualitative—in order to focus on different aspects, elements, or components of the same phenomena. “*In this way*”, write Kelle and Erzberger, “*different perspectives opened by different methods can create a more complete and more adequate picture than would emerge when only one single method is used*” (Kelle & Erzberger, 2001: 107).²⁰⁴ This type of complementarity stands behind a large deal of analysis in this study, and I would like to provide some examples. The construction of

²⁰³ However, I would like to emphasise that the focus of this study is achievement careers as such and not the relationship between family and career. The latter issue would only become a centre of interest if the family was revealed to be a crucial factor in the unfolding of the male achievement career. As the results of the Chapter 6 and 7 suggest, however, this is not the case.

²⁰⁴ Translated by F.B.

the career typology and its description with indicators, such as orderliness, loyalty, and rhythm, shows, for instance, that certain types are more loyal than others. This is an interesting result, but the quantitative methods can only postulate this theoretical relation between one specific career type and the fact that the members of this type only seldom change firms. When it comes to responding to the question of why this particular type is more loyal (or why others are less loyal), however, these quantitative results are not very helpful. The qualitative accounts not only give us indefinitely more complex and deeper information on single trajectories, they also inform us of the norms, reflexions, and identities that are “behind” decisions, such as decisions to change a firm or to remain true to a firm. Specifically, the accounts of technical-industrial engineers better informed us on the opportunity structures of large industrial firms—everyone has to pass through research and development. What is more, the qualitative accounts informed me, for instance, that being a handyman is an important personality element of some interviewees, who fear that an outbreak of the technical domain is a kind of betrayal with respect to this identity (Chapter 7.5); that they consider an outbreak to be necessarily irreversible (Chapter 8.6); and that the idea that one has to serve the project and the firm is intimately linked to this identity (Chapter 8.4). Even if not all questions about loyalty and disloyalty are clarified, the qualitative results can explain mechanisms that quantitative methods cannot. However, quantitative methods allow me to find correlations that qualitative methods are unable to find. Kelle and Erzberger write, “*The results of statistical analyses show which types of actions social actors execute in the field of study, hence the analysis of qualitative materials helps to respond to “why questions”*” (Kelle & Erzberger, 2001: 110).²⁰⁵ Inversely, it is clear that qualitative data are not able to measure distributions or to measure the length of certain periods and their changes over time. In other words, I am convinced that even though knowing the intentions of the social actors can be enriching for certain types of analyses (see above), certain social phenomena and experiences are hidden to the actors who are living them. All of these phenomena are, therefore, not—or only very indirectly—accessible to qualitative data. Even if certain qualitative methods—such as the “objective hermeneutic” (Overmann, 2002) or the categorical-analytical approach of Dubar and Demazière—may penetrate to social structures and categorisations that are underlying the form of the accounts but not explicitly outspoken by the interviewees, not all social structures are approachable by such procedures. The temporal structures of a career, its rhythm or the length of its spells, for instance, and even

²⁰⁵ Translated by F.B.

more so changes in this structure, are not reflected in the accounts of the individuals, unless these changes are part of a radical and/or abrupt event which is perceived by the individuals.

Thirdly, quantitative and qualitative results can diverge. In this case, *“the results that are attained with the help of one method can be weakened or even refuted by the use of a further method to study the same phenomenon”* (Kluge & Erzberger, 2001). However, such a divergence must not be exclusively seen as a failure. Often, research strategies are explicitly searching for divergent results in order to advance the study, to find new ideas, or to think of further theoretical ideas. In the present research, the relationship between careers and the family is one for which the quantitative and qualitative approaches have produced slightly diverging results and which can inspire further studies to adapt their tools and concepts. As I have shown in sub-chapter 6.7, the quantitative analyses revealed that there is no statistically significant association between family trajectories and occupational trajectories. The qualitative analyses in sub-chapter 8.7, however, suggest that there is a certain though not very clear link between limited opportunity structures at a certain moment in the career and the wish to shift priorities from occupation to family. In potential following studies, this divergence may corroborate the urgency to seek an alternative conceptualisation of the family trajectory and for the inclusion of further family-related items in a future questionnaire (that I have already formulated in sub-chapters 6.7 and 11.5).

11.9 Limits of the Approach

The results of the study are overshadowed by certain weaknesses and limits. I have discussed these in Chapter 4 and, above all, in the four empirical chapters, Chapters 5, 6, 7, and 8, when they emerged in the analysis. In this last section, I would like to take up these problems and discuss them in a more general perspective.

Compared to more conventional approaches to career mobility, the choice of two professional groups as the central unit of observation is potentially deficient in several ways (see sub-chapter 4.4). On the one hand, it is possible that a smaller portion of HOS engineers and business economists than I assumed are motivated by social ascensions. I also assumed that this characteristic of the group remains historically stable over almost 30 years. Hence, we know that the HOS degree in 1975 does not necessarily have the same social meaning as the HOS degree in 1995. The absolute and relative number of graduates, their relationship to the

collective trajectory of other social groups, or their evaluation of their situation and perspective at different moments of their biography may have changed according to the historical moment. And these perspectives depend more or less directly on the structural opportunities that are typically attached with the diploma. More problematic even, they are certainly not the only social climbers. What is cruelly lacking in this approach is a comparison to other types of social ascension—at the same time with people coming from different social origins (for example, from an immigrant milieu) and with people following alternative pathways to the top (such as university or purely occupational pathways). Such a comparative approach would have allowed me to understand the careers of HOS graduates in more relational terms, which finally might have revealed aspects that cannot be found in a non-comparative approach.

Second, the study is characterised by a certain fuzziness with respect to gender. On the one hand, this weakness results from a theoretical and practical sampling problem. On the other hand, it depends on analytical problems that are, among other things, due to lacking possibilities of comparison. The initial idea was to examine achievement careers as typical male trajectories. However, economists are not an exclusively male professional group. More than 20% of them are female, and the proportion of women seems to have increased slightly in recent years. This poses two problems: on the one hand, the validity of analyses that consider the trajectories of business economists are problematic, particularly when compared to the engineers' trajectories, which are, indeed, almost exclusively male. This comparison can become particularly problematic when the family situation is analysed. In addition, the occupational trajectory (with respect to regularity and success) can vary widely for male and female economists, particularly because it seems that the occupation is divided into "hard" or masculine specialisations (accountability, controlling) and "soft" or feminine specialisations (personnel, marketing) (see, for example, sub-chapter 7.5). Secondly, the marginal proportion of women among the engineers and the business economists in the sample does not really allow me to conduct separate and comparative analyses of the group. In both the quantitative and the qualitative sample, the number of individuals is not sufficient, and their distribution along important dimensions of comparison is not systematic enough. Because of the lack of a large enough group of women among engineers and economists (to which the male trajectory could have been compared), the specific male character could not have been discussed sufficiently, neither for the construction of the typology (which potentially also features a

gender-bias), nor in the qualitative interviews.²⁰⁶ Such a comparison—for instance, with other groups of trajectories (see above)—would certainly have sharpened the analysis in terms of gender issues.

A third weakness of the study is its conceptualisation of time (i.e., the problematic effects of period, cohort, and age). I discussed this weakness in the empirical chapters. For example, in Chapter 5, I introduced cohort differentiations for the variable partner's educational level, employment status, and employment rate in order to control for the changes in this field, namely the structurally increasing educational level from the 1970s on and also the increasing female labour market participation from the 1980s on. In Chapter 6, I discussed the problems of a comparison of uncompleted and completed trajectories and the problematic comparison of the same trajectory phases that occurred in historically different periods. Completed by a section on the problems due to the unreliability of autobiographical memories, I discussed comparable issues in the two qualitative chapters and in the sub-chapters on analytical strategy, 7.2 and 8.2.

The joint utilisation of completed and uncompleted trajectories poses problems in terms of cohort analysis. Specifically, the comparison of the trajectories of older and younger cohorts is made difficult by the fact that those of the younger cohorts are not yet completed. All conclusions on changes of the rhythm and the form of career are thus on relatively shaky ground because only the early career phases can be compared. Also, as a result, the early career phases, such as the moult phase and the trial phase, are more thoroughly covered than the later phases, for which I only have material from the older cohort, those born before 1955. The outcomes concerning the ascension, consolidation, and cooling-out phases should, therefore, be treated with caution. They are based on the data of a rather small number of individuals, and we do not know how this period changes for younger cohorts. As the casualisation of the achievement career seems to begin at its margins (see Chapter 5), this is particularly regretful. It is rather likely, in my view, that only a cohort comparison of the later phases would reveal much more on the transformation of achievement careers in the last decades. This also concerns the qualitative analysis; I do not know, to date, how the careers of the younger business economists and engineers are developing and how they will interpret their potential consolidation and cooling-out phases. What adds to the problem, here, is that when I examine the career phases (Chapter 7), I am forced to compare accounts on the same

²⁰⁶ I only interviewed two women, and their accounts have been very marginal in the qualitative analyses.

biographical moment that otherwise occurred at different historical moments and that are differing in time. First, the meaning of a certain biographical transition or phase—even if it seems to be more or less the same in terms of its structural unfolding—can mean something completely different according to the historical period in which it happens. The trial phase, for example, could have a different signification depending on the general economic situation. In times of prosperity, to give a job or a function a trial can be a ludic activity because one knows that in the case of failure, one has alternative choices and possibilities. In times of economic crisis, the same search could happen under conditions of pressure, and the frequent changes might also be due to short-term employments or dismissals. Such possible differences between cohorts were not always easy to understand with the qualitative material because the narratives of one's younger years may have been, to a certain extent, idealisations.

Finally, the analysis concerning the family suffers from a poor data situation. Not only are few structural and historical data on the family available, but the questionnaire and the qualitative interviews were also centred on the occupational trajectory. The section on family life in the questionnaire, for example, should have been organised in a more temporalised way and included further dimensions that would have allowed for the construction of a richer typology. Also, it would have been interesting to include further indicators—on the style of family interaction or on the couple's satisfaction, for example. Another interesting possibility would have been to survey not only the men pursuing careers but also their spouses, which would have enabled us to learn more about their occupational and familial trajectories. Specifically, the examination of the female partner's occupational trajectory probably would have yielded more convincing results than analyses of their static employment statuses and employment rates (see Chapter 5.5). When it comes to the qualitative interviews, it proved sometimes difficult to speak about the family situation. The interview was announced to be on occupational career and additionally related to the occupational association FH Schweiz. Therefore, some of the interviewees were not really prepared to speak about the more "personal" aspects of their family lives or the situations of their spouses. This was particularly true for people with familiar difficulties or for those who did not have traditional family structures (for example, homosexual interviewees). In order to improve the qualitative data situation on the articulation between female and male trajectories, it would be necessary to announce it from the beginning as a study on this issue. All in all, these results on the family situation are not always very convincing and also lead theoretically to a less prominent status

for “family factors”. In future research, family trajectories should, in the sense of linked lives (Elder, 1995), be put more systematically and with an equal status aside the occupational trajectories.

Apendix 1: Questionnaire

Questionnaire sur les carrières HES 2005

Cher membre de HES Suisse! L'association faîtière HES Suisse conduit, en collaboration avec l'Université de Lausanne, une étude portant sur les parcours professionnels des diplômé(e)s des Hautes écoles spécialisées. Le questionnaire traite les sujets « formation », « trajectoire professionnelle », « situation familiale » et « données personnelles ». Il dure environ 15 minutes et est facile à remplir. Evidemment, vos données seront anonymisées et traitées avec la plus grande discrétion.

Veillez renvoyer le questionnaire rempli dans l'enveloppe-réponse affranchie ci-joint à l'adresse suivante jusqu'au 30 septembre:

Université de Lausanne
Institut d'étude des parcours
et modes de vie
Bâtiment Provence
1015 Lausanne

A Formation

Vous trouvez ici une série de titres de formation, que les diplômés HES peuvent acquérir. Nous vous prions de nous indiquer l'année de l'acquisition de votre titre, ainsi que la discipline exacte, le lieu et l'institution. Si vous n'avez pas fait une formation laissez les lignes tout simplement vides.

A1 Apprentissage/ maturité professionnelle

Année de diplôme 1^{er} apprentissage: _____
Profession : _____
Année de diplôme 2^{ème} apprentissage: _____
Profession : _____

A2 Maturité

Année de diplôme: _____
Type (scientifique, latin etc.): _____

A3 Haute école spécialisée (HEG, ETS)

Année de diplôme : _____
Lieu et institution : _____
Discipline exacte : _____

A4 Etudes postgrades (MBA, Executive Master)

Année de diplôme : _____
Lieu et institution : _____
Discipline exacte: _____

A5 Diplôme fédéral supérieur (chef marketing, expert comptable etc.)

Année de diplôme : _____
Lieu et institution : _____
Discipline exacte: _____

A6 Université

Année de diplôme : _____
Université : _____
Discipline exacte : _____

B Parcours professionnel

La partie suivante porte sur votre biographie professionnelle. Vous êtes prié d'indiquer toutes les étapes de votre vie professionnelle **dès la fin de votre apprentissage/ maturité**. Pensez à des changements d'employeur, mais également à des changements de positions fonctionnelles ou hiérarchiques au sein de la même entreprise. Nous vous prions de d'abord indiquer la période concernée, puis de noter si pendant cette période vous étiez employé, indépendant ou sans emploi et enfin, selon votre statut, de nous donner quelques informations supplémentaires sur cette étape. Ne prenez en compte que des étapes professionnelles d'une durée supérieure à 6 mois s'il vous plaît.

	1 ^{ère} étape professionnelle	2 ^{ème} étape professionnelle
B1 Début et fin de cette étape professionnelle?	De _____ à _____ (année)	De _____ à _____ (année)
B2 Quel était votre statut ?	<input type="checkbox"/> employé <input type="checkbox"/> indépendant <input type="checkbox"/> sans emploi	<input type="checkbox"/> employé <input type="checkbox"/> indépendant <input type="checkbox"/> sans emploi
Si employé :		
B3 Avez-vous changé d'entreprise ?		<input type="checkbox"/> même entreprise <input type="checkbox"/> nouvelle entreprise
B4 Quelle était la désignation précise de votre poste d'emploi ?	_____	_____
B5 Quelle était votre position professionnelle ?	<input type="checkbox"/> cadre supérieur (direction) <input type="checkbox"/> cadre moyen (chef de section, division) <input type="checkbox"/> cadre scientifique ou technique (sans fonction dirigeante) <input type="checkbox"/> cadre inférieur (chef de projet, groupe) <input type="checkbox"/> employé <input type="checkbox"/> autres : _____	<input type="checkbox"/> cadre supérieur (direction) <input type="checkbox"/> cadre moyen (chef de section, division) <input type="checkbox"/> cadre scientifique ou technique (sans fonction dirigeante) <input type="checkbox"/> cadre inférieur (chef de projet, groupe) <input type="checkbox"/> employé <input type="checkbox"/> autres : _____
B6 Dans quelle unité de l'entreprise étiez-vous employé ?	<input type="checkbox"/> production <input type="checkbox"/> recherche/ développement <input type="checkbox"/> finances/ comptabilité <input type="checkbox"/> vente/ marketing/ publicité <input type="checkbox"/> informatique <input type="checkbox"/> personnel <input type="checkbox"/> autres : _____	<input type="checkbox"/> production <input type="checkbox"/> recherche/ développement <input type="checkbox"/> finances/ comptabilité <input type="checkbox"/> vente/ marketing/ publicité <input type="checkbox"/> informatique <input type="checkbox"/> personnel <input type="checkbox"/> autres : _____
B7 Quel était votre taux d'emploi ?	_____%	_____%
B8 Combien de collaborateurs étaient employé par votre employeur (en Suisse)?	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus
B9 Quel était le statut juridique de cette entreprise?	<input type="checkbox"/> privé <input type="checkbox"/> public	<input type="checkbox"/> privé <input type="checkbox"/> public
B10 Quelle était l'activité économique principale de cette entreprise (branche)?	_____	_____
Si indépendant:		
B11 Combien de collaborateurs étaient employé par votre entreprise (en Suisse)?	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus
B12 Quelle était l'activité économique principale de cette entreprise (branche)?	_____	_____
Si sans emploi:		
B13 Pour quelles raisons étiez vous sans emploi?	<input type="checkbox"/> formation, formation continue <input type="checkbox"/> chômage / maladie, invalidité <input type="checkbox"/> Femme, homme au foyer <input type="checkbox"/> autres : _____	<input type="checkbox"/> formation, formation continue <input type="checkbox"/> chômage / maladie, invalidité <input type="checkbox"/> Femme, homme au foyer <input type="checkbox"/> autres : _____

3 ^{ème} étape professionnelle	4 ^{ème} étape professionnelle	5 ^{ème} étape professionnelle
De _____ à _____ (année)	De _____ à _____ (année)	De _____ à _____ (année)
<input type="checkbox"/> employé <input type="checkbox"/> indépendant <input type="checkbox"/> sans emploi	<input type="checkbox"/> employé <input type="checkbox"/> indépendant <input type="checkbox"/> sans emploi	<input type="checkbox"/> employé <input type="checkbox"/> indépendant <input type="checkbox"/> sans emploi
<input type="checkbox"/> même entreprise <input type="checkbox"/> nouvelle entreprise	<input type="checkbox"/> même entreprise <input type="checkbox"/> nouvelle entreprise	<input type="checkbox"/> même entreprise <input type="checkbox"/> nouvelle entreprise
_____	_____	_____
<input type="checkbox"/> cadre supérieur (direction) <input type="checkbox"/> cadre moyen (chef de section, division) <input type="checkbox"/> cadre scientifique ou technique (sans fonction dirigeante) <input type="checkbox"/> cadre inférieur (chef de projet, groupe) <input type="checkbox"/> employé <input type="checkbox"/> autres : _____	<input type="checkbox"/> cadre supérieur (direction) <input type="checkbox"/> cadre moyen (chef de section, division) <input type="checkbox"/> cadre scientifique ou technique (sans fonction dirigeante) <input type="checkbox"/> cadre inférieur (chef de projet, groupe) <input type="checkbox"/> employé <input type="checkbox"/> autres : _____	<input type="checkbox"/> cadre supérieur (direction) <input type="checkbox"/> cadre moyen (chef de section, division) <input type="checkbox"/> cadre scientifique ou technique (sans fonction dirigeante) <input type="checkbox"/> cadre inférieur (chef de projet, groupe) <input type="checkbox"/> employé <input type="checkbox"/> autres : _____
<input type="checkbox"/> production <input type="checkbox"/> recherche/ développement <input type="checkbox"/> finances/ comptabilité <input type="checkbox"/> vente/ marketing/ publicité <input type="checkbox"/> informatique <input type="checkbox"/> personnel <input type="checkbox"/> autres : _____	<input type="checkbox"/> production <input type="checkbox"/> recherche/ développement <input type="checkbox"/> finances/ comptabilité <input type="checkbox"/> vente/ marketing/ publicité <input type="checkbox"/> informatique <input type="checkbox"/> personnel <input type="checkbox"/> autres : _____	<input type="checkbox"/> production <input type="checkbox"/> recherche/ développement <input type="checkbox"/> finances/ comptabilité <input type="checkbox"/> vente/ marketing/ publicité <input type="checkbox"/> informatique <input type="checkbox"/> personnel <input type="checkbox"/> autres : _____
_____ %	_____ %	_____ %
<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus
<input type="checkbox"/> privé <input type="checkbox"/> public	<input type="checkbox"/> privé <input type="checkbox"/> public	<input type="checkbox"/> privé <input type="checkbox"/> public
_____	_____	_____
<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus
_____	_____	_____
<input type="checkbox"/> formation, formation continue <input type="checkbox"/> chômage / maladie, invalidité <input type="checkbox"/> Femme, homme au foyer <input type="checkbox"/> autres : _____	<input type="checkbox"/> formation, formation continue <input type="checkbox"/> chômage / maladie, invalidité <input type="checkbox"/> Femme, homme au foyer <input type="checkbox"/> autres : _____	<input type="checkbox"/> formation, formation continue <input type="checkbox"/> chômage / maladie, invalidité <input type="checkbox"/> Femme, homme au foyer <input type="checkbox"/> autres : _____

6 ^{ème} étape professionnelle	7 ^{ème} étape professionnelle	8 ^{ème} étape professionnelle
De _____ à _____ (année)	De _____ à _____ (année)	De _____ à _____ (année)
<input type="checkbox"/> employé <input type="checkbox"/> indépendant <input type="checkbox"/> sans emploi	<input type="checkbox"/> employé <input type="checkbox"/> indépendant <input type="checkbox"/> sans emploi	<input type="checkbox"/> employé <input type="checkbox"/> indépendant <input type="checkbox"/> sans emploi
<input type="checkbox"/> même entreprise <input type="checkbox"/> nouvelle entreprise	<input type="checkbox"/> même entreprise <input type="checkbox"/> nouvelle entreprise	<input type="checkbox"/> même entreprise <input type="checkbox"/> nouvelle entreprise
_____	_____	_____
<input type="checkbox"/> cadre supérieur (direction) <input type="checkbox"/> cadre moyen (chef de section, division) <input type="checkbox"/> cadre scientifique ou technique (sans fonction dirigeante) <input type="checkbox"/> cadre inférieur (chef de projet, groupe) <input type="checkbox"/> employé <input type="checkbox"/> autres : _____	<input type="checkbox"/> cadre supérieur (direction) <input type="checkbox"/> cadre moyen (chef de section, division) <input type="checkbox"/> cadre scientifique ou technique (sans fonction dirigeante) <input type="checkbox"/> cadre inférieur (chef de projet, groupe) <input type="checkbox"/> employé <input type="checkbox"/> autres : _____	<input type="checkbox"/> cadre supérieur (direction) <input type="checkbox"/> cadre moyen (chef de section, division) <input type="checkbox"/> cadre scientifique ou technique (sans fonction dirigeante) <input type="checkbox"/> cadre inférieur (chef de projet, groupe) <input type="checkbox"/> employé <input type="checkbox"/> autres : _____
<input type="checkbox"/> production <input type="checkbox"/> recherche/ développement <input type="checkbox"/> finances/ comptabilité <input type="checkbox"/> vente/ marketing/ publicité <input type="checkbox"/> informatique <input type="checkbox"/> personnel <input type="checkbox"/> autres : _____	<input type="checkbox"/> production <input type="checkbox"/> recherche/ développement <input type="checkbox"/> finances/ comptabilité <input type="checkbox"/> vente/ marketing/ publicité <input type="checkbox"/> informatique <input type="checkbox"/> personnel <input type="checkbox"/> autres : _____	<input type="checkbox"/> production <input type="checkbox"/> recherche/ développement <input type="checkbox"/> finances/ comptabilité <input type="checkbox"/> vente/ marketing/ publicité <input type="checkbox"/> informatique <input type="checkbox"/> personnel <input type="checkbox"/> autres : _____
_____ %	_____ %	_____ %
<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus
<input type="checkbox"/> privé <input type="checkbox"/> public	<input type="checkbox"/> privé <input type="checkbox"/> public	<input type="checkbox"/> privé <input type="checkbox"/> public
_____	_____	_____
<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus	<input type="checkbox"/> 1 à 9 <input type="checkbox"/> 10 à 49 <input type="checkbox"/> 50 à 249 <input type="checkbox"/> 250 et plus
_____	_____	_____
<input type="checkbox"/> formation, formation continue <input type="checkbox"/> chômage / maladie, invalidité <input type="checkbox"/> Femme, homme au foyer <input type="checkbox"/> autres : _____	<input type="checkbox"/> formation, formation continue <input type="checkbox"/> chômage / maladie, invalidité <input type="checkbox"/> Femme, homme au foyer <input type="checkbox"/> autres : _____	<input type="checkbox"/> formation, formation continue <input type="checkbox"/> chômage / maladie, invalidité <input type="checkbox"/> Femme, homme au foyer <input type="checkbox"/> autres : _____

C Parcours familial

Dans la partie suivante nous nous intéressons à votre parcours familial. Veuillez indiquer les étapes suivantes de votre vie relationnelle et familiale : Début d'une relation, début de la cohabitation, séparation, mariage, divorce et veuvage. Chaque ligne correspond à un partenaire différent, indiquez uniquement les événements qui se sont réalisés dans l'année. **Veillez commencer la liste avec votre relation actuelle (respectivement dernière)** et puis remontez chronologiquement jusqu'à votre première relation. Notez seulement les relations ayant durées plus de six mois s'il vous plaît. Il n'y a pas besoin d'indiquer les phases sans relation.

C1 Déroulement de la vie relationnelle et familiale

	Début relation	cohabitation	mariage	séparation	Divorce	Veuvage	---
Exemple :	1984	1986		1986	---	1991	---
1.	_____	_____	_____	_____	_____	_____	
2.	_____	_____	_____	_____	_____	_____	
3.	_____	_____	_____	_____	_____	_____	
4.	_____	_____	_____	_____	_____	_____	
5.	_____	_____	_____	_____	_____	_____	
6.	_____	_____	_____	_____	_____	_____	

C2 Enfants

Année de naissance du 1er enfant : _____ Année de naissance du 4ème enfant : _____
Année de naissance du 2ème enfant : _____ Année de naissance du 5ème enfant : _____
Année de naissance du 3ème enfant : _____ D'autres enfants : _____

Je n'ai pas d'enfants

D Données personnelles

Pour finir quelques questions sur votre personne et vos origines familiales.

D1 Votre sexe : masculin féminin

D2 Votre année de naissance : _____

D3 Quelle est le niveau de formation le plus élevé de votre père ?

- école obligatoire
- apprentissage, école professionnelle
- maturité, école normale
- maîtrise fédérale
- haute école supérieure
- université, epfl

D4 Quel était la profession exacte de votre père quand vous aviez 10 ans ? _____

D5 Quelle position professionnelle occupait votre père quand vous aviez 10 ans ?

- salarié (ouvrier, employé, fonctionnaire)
- indépendant
- sans emploi (invalidité, chômage, homme au foyer)

D6 Quelle est le niveau de formation le plus élevé de votre mère ?

- école obligatoire
- apprentissage, école professionnelle
- maturité, école normale
- maîtrise fédérale
- haute école supérieure
- université, epfl

D7 Quelle était la profession exacte de votre mère quand vous aviez 10 ans ? _____

D8 Quelle position professionnelle occupait votre mère quand vous aviez 10 ans ?

- salariée (ouvrier, employé, fonctionnaire)
- indépendante
- sans emploi (invalidité, chômage, femme au foyer)

Merci beaucoup de votre participation.

Afin de comprendre non seulement le déroulement factuel des carrières, mais également les motivations, décisions et stratégies individuelles qui les accompagnent, nous aimerions dans une deuxième étape, mener quelques entretiens approfondis d'une durée d'environ une heure, avec une petite sélection de répondants. Seriez vous d'accord d'être contacté pour un éventuel entretien de ce type ? Oui Non

Si oui, merci de nous indiquer votre nom et votre adresse, en vue d'une prise de contact:

Nom : _____ Prénom : _____
Adresse : _____ Tel. _____

Appendix 2: Interview Guide

Leitfaden : Karriereinterviews

In diesem Gespräch interessiere ich mich für Ihre Berufsbiographie, besonders aber für ihre persönlichen Wahrnehmung, Deutung und Auslegung ihres Werdeganges. Um ihre Geschichte ganzheitlich zu verstehen, möchte ich sie bitten, uns nochmals zu erzählen, wie sie aufgewachsen sind, wie ihr Berufsleben bisher verlaufen ist, welches Leben sie ausserhalb ihres Berufs führen und welche Gedanken sie über die Zukunft haben.

BLOCK I: Ursprungsfamilie; Kindheit und Jugend; Schule und Berufsfindung

- ☛ Können sie erzählen wie sie aufgewachsen sind, wie sie ihre Kindheit und Jugend erlebt haben?
- ☛ Was haben ihre Eltern gemacht, wie war die Situation bei ihnen zuhause, was sind ihre Geschwister geworden?
- ☛ Können Sie ein bisschen erzählen wie sie ihre Schuljahre erlebt haben und wie sie schliesslich zu ihrem Beruf gekommen sind?

[Hoffnungen und Erwartungen der Eltern; Prägende Erlebnisse in der Kindheit und Jugend; Erleben der Schule; eigene Erwartungen, Hoffnungen, Träume an die Zukunft im Rückblick; subjektiver Beschrieb des Verlaufes der Berufsfindung]

BLOCK II: Berufsprojekt und Lebensentwurf

- ☛ Sie haben eine FH-Ausbildung gemacht und sind Ingenieur/ Betriebswirt geworden. Können sie mal erzählen wie es dazu gekommen ist?
- ☛ Wenn Sie sich zurück erinnern, können sie einmal möglichst detailliert erzählen wie ihr Berufsleben nach ihrer Ausbildung bis heute verlaufen ist?
- ☛ Welches waren die einzelnen Etappen? Firma, Position, Aufgaben, Funktion? Wie haben sie die jeweiligen Etappen erlebt, wie fühlten sie sich, was lief gut, was machte ihnen Probleme?
- ☛ Können sie jeweils auch erzählen wieso und wie genau sie die Arbeitsstellen gewechselt haben?

[Deutung der einzelnen Etappen; Interpretationen der Wechsel zwischen den einzelnen Etappen; Deutungen der verschiedenen Akteure; Klassifikationen von Verläufen; Selbstdarstellung; Zeitkonzeptionen]

BLOCK III: Beruf und Familie/ Freizeit

- ☛ Können sie mir erzählen wie ihr Beziehungs- und Familienleben sich entwickelt hat? Wie haben sie in den jeweiligen Phasen ihr Berufs- und ihr Privatleben miteinander kombiniert?
- ☛ Können sie sich erinnern was sie während dieser Jahre ausserhalb des Berufes gemacht haben? Welche Bedeutungen haben diese Tätigkeiten für sie gehabt?
- ☛ Können sie erzählen mit welchen Partnern sie im Laufe der Zeit zusammen waren? Wie haben sie die Wohnsituation jeweils gestaltet? Was haben ihre Partner beruflich gemacht?
- ☛ Wie hat sich ihr Freundeskreis im Laufe der Jahre verändert? Wer waren in den einzelnen Phasen ihres Lebens die wichtigsten Bezugspersonen und wieso?

[Faktische Beziehungsverläufe, Aus- und Rückwirkungen zwischen Familienzyklus und Berufsverlauf; Aufteilung des Lebens; Beziehungen und ihre Parallelen zum Berufsleben; Kinder ⇔ Beziehung zu den Kindern, Erwartungen an die Kinder]

BLOCK IV: Zukunft

- ☛ Können sie noch etwas darüber erzählen wie sie ihre Zukunft sehen? Was werden sie in 10 Jahren machen?
- ☛ Wie wird sich die Wirtschaft in den folgenden Jahren ihrer Meinung nach entwickeln? Welche Möglichkeiten, Chancen und Gefahren sehen sie für sich selber und ihren weiteren Weg angesichts dieser Entwicklungen?
- ☛ Wie schätzen sie die wirtschaftliche und politische Situation der Schweiz ein?
- ☛ Welches waren ihrer Ansicht nach die wichtigsten Veränderungen in ihrem Berufsfeld, in den Organisationen und Unternehmen in denen sie gearbeitet haben? Wie wurden sie und andere Personen davon betroffen, welche Auswirkungen hat das für sie gehabt?

Appendix 3: List and Description of Interviewed Persons

Interviewee #1: Male, Engineer, *1944, Small Firm Career, divorced, 1 child. Comes from a farmer's background, made an apprenticeship as « construction drawer », first worked in a small planning firm, then changed to middle-sized construction firms where he first worked as construction-site director and then as a senior-engineer. Currently he is senior engineer in a rather large, foreign construction firm.

Interviewee #2: Male, Business Economist, *1969, Service Staff Career, married, two children. His parents are highly qualified, but then downgraded immigrants from Eastern-Europe. He made a commercial school and then began to work in an IT-unit in a cantonal government. Later, with the help of his HOS-diploma, he changed to the federal administration, where he works as an IT-manager.

Interviewee #3: Male, Engineer, *1929, Technical Industrial Career, married two children. Describes his background as petty-bourgeois. After an apprenticeship as fitter (Maschinenschlosser) he makes an evening-school to become engineer. He then first works in three middle-sized industrial firms in the heating sector and with 40 years changes to a government-financed firm (about 50 employees) dealing with waste management. There he works as a research engineer.

Interviewee #4: Male, Engineer, *1957, Small Firm Career, married, two children. His father was the accountant of a large car-garage and his mother a homemaker. He learned electrician, followed by an evening school as engineer. After a year in the Machine-Industry he joined a middle-sized planning firm, then started his own planning business and now is the manager of a small-planning firm (with 5 collaborators) in the electric-construction sector, which is a part of a larger, Swiss wide network (holding) of small businesses.

Interviewee #5: Male, Engineer, *1967, Industrial Management Career, single, no children. He emphasizes his very modest origin, the father being a non-qualified worker, the mother a homemaker. He attended an apprenticeship as construction-drawer and then a technical evening school. Consequently he began working in a small planning firm, then entered in the telecom-sector, became a director of a middle-sized firm which failed. After a long period of unemployment, he is now in the middle management of a very large, international retail company.

Interviewee #6: Male, Business Economist, *1973, Financial Career, single, no children. Both parents are self-employed: the father as owner of a garage, the mother as a shop-keeper. He makes a commercial apprenticeship at a large bank, then attended the HOS as economist, worked briefly in industry (as accountant) and now has entered in the finance-marketing unit of a middle-sized watch-company, a sector to which he feels also emotionally close.

Interviewee #7: Female, Business Economist, *1974, Service Staff Career, single, no children. Her parents are employees, but without university diploma as she emphasizes. After a commercial apprenticeship in the banking sector, she went to the HOS and discovered her talent for marketing. She then sought to enter the sector of luxury products and has since worked in the watch and perfume industry, first as a marketing assistant, currently as a marketing manager in large and international company.

Interviewee #8: Male, Business Economist, *1958, Financial Career, married, two children. His father is worker for a large governmental service-company, his mother first secretary, then homemaker. He makes a commercial apprenticeship, followed by the Higher occupational School in business. He begins to work in small and medium-sized firms, as accountant and manager, becomes vice-director of a government-sponsored NGO and finally the director of an important environmental NGO. When he leaves them, after a short time as manager in a tourist firm he becomes unemployed (more than a year) and now works for a small consultancy company.

Interviewee #9: Male, Engineer, *1960, Technical-Industrial Career, married, 3 children. He comes from a agricultural background, learns mechanic (for agricultural machines) and then goes to the technical school to become mechanical engineer. Following his graduation he joins a large-scale industrial firm and then becomes senior engineer in a large government controlled electricity plant.

Interviewee #10: Male, Business Economist, *1964, Financial Career, married, 3 children. The father was working as a bus-driver and the mother as a homemaker, but with a side-job as tailor. He attends a banking-apprenticeship at a large bank, works for some years in the same bank, then goes to the HOS. Following graduation he joins a large and international catering company as a controlling-specialist and quickly moves up the organisational ladder until he became CFO. After a merger with another firm, he quite and is now working as a partner in a private-equity firm (with about four “partners” and some employees).

Interviewee #11: Male, Business Economist, *1958, Service Staff Career, separated, 2 children. His father is the owner of a construction business, his mother (before the family starting a teacher) a homemaker. Following his commercial apprenticeship in a medium-size industry firm, he attends the Higher Business School. He begins as an assistant in a service firm and specialises in human resources. After some years he becomes self-employed and owns since then a small personal recruiting agency, together with a partner.

Interviewee #12: Male, Engineer, *1949, Industrial Management Career, married, 2 children. He grew up in a “modest milieu” – the father an employed baker, the mother homemaker and part-time tailor – and made an apprenticeship as Radio-Television-Electrician. Immediately following the HOS-graduation he entered in a large, international telecommunication firm and moved up the ladder: he became group-, unit- and then division-manager – and then was laid off, with 55. Recently he has founded an own business as consultant in the telecommunication sector.

Interviewee #13: Male, Business Economist, *1971, Financial Banking Career, married, no children. Coming from a “normal” background, the father a representative, the mother a homemaker, he attends a commercial apprenticeship. After the Higher Occupational School in Business Economy he works for a large accounting firm abroad and is then recruiting by a large assurance company for which he is still working (between IT and controlling).

Interviewee #14: Male, Engineer, *1938, Technical-Industrial Career, married, two children. His father worked as a mechanic in a small firm, his mother was a housekeeper. His own story in a nutshell: he attended an apprenticeship as fine-mechanic, went to the Higher Technical School and then worked for a series of medium and larged sized industrial firms as engineer. The largest part of his career he spent in a large paper-factory as senior engineer; he is currently retired.

Interviewee #15: Male, Business Economist, *1963, Financial Banking Career, married, 2 children. His Parents are employees: the father is a mechanic the mother housekeeper, but from time to time working as accountant. He made a banking apprenticeship, followed directly by the Higher Occupational School. His veritable occupational life began in an international logistic firm (large firm), then as accountant in the media branch (middle-sized firm). Finally he moved to the banking sector, where he made a quick ascension as a controller and finally as Chief Financial Officer of an important unit of a large Swiss bank.

Interviewee #16: Male, Engineer, *1956, Technical-Industrial Career, married, 2 children. He indicates that his father was locksmith and his mother could make no apprenticeship because of the war; she was a homemaker. He attended an apprenticeship as fine-mechanic and then, rapidly afterwards, the Higher technical school. Following this, he enters the firm where he already attended his apprenticeship (a large firm in the machine-industry) and began to work there first as a simple engineer in research, then as a team-leader and senior engineer. Recently he has been downgraded.

Interviewee #17: Male, Business Economist, *1952, Service Staff Career, married, 2 children. As one of the rare ones he comes from a “good home”. His father has an university degree and is director of a occupational school, his mother homemaker. After a commercial highschool (Handelsmatura), a short stay at a large international bank, he decides to improve his education at a Higher Commercial School. Following this, he entered a large Swiss Bank, specialised in human resource management and then moved up the stairs until he arrived at his current position in upper human resource management.

Interviewee #18: Male, Engineer, *1955, Technical-Industrial Career, married, 3 children. He describes his upbringing-milieu as “working class” – his father was a painter and decorator, his mother homemaker. Without role-models he made an apprenticeship as machine-drawer and then went to the Higher Technical School. Subsequently, he began a career as an engineer in the research and development unit of a large company constructing textile-machines. Across his career he remained in the technical domain, first as team-leader, then as junior and then senior responsible for quality-management, his current position.

Interview #19: Male, Engineer, *1967, Technical-Industrial Career, married, 3 children. He stems from a farmers-family, living in a rather rural area. Following his apprenticeship as car-mechanic, he works some years in a firm producing farming machines. Then he decides to join the Higher Technical School as a mechanical engineer. He then works in a R/D-unit of a large industrial firm, becomes a team-leader and changes in his thirties to another large (but, according to him “more familiar”) firm in the machine sector – mainly for “familial reasons”.

Interview #20: Male, Engineer, *1952, Industrial-Management Career, married, no children. His mother works for the national railway company, his mother is self-employed in the commercial sector. He first becomes an electrician. At the age of 20 years he decides to attend the Higher Technical School. Following this, he becomes a sales engineer first in medium-size industrial firm, then in an very large, international IT-firm. He then takes over a medium-size company in the electric branch, where he is currently the owner and manager.

Interview #21: Male, Business Economist, *1969, Financial-Banking Career, divorced, no children. As son of a policeman and a self-employed mother (in the tourist sector) he attends a commercial apprenticeship and later the Higher Commercial School. He then chose a career entry in one of the large, international revision groups, changed then to the banking sector and

is now working in a large private bank. Coming from accounting, he is now working in a unit at the intersection of accounting and IT.

Interviewee #22: Male, Business Economist, *1973, Financial-Banking Career, married, 3 children. His father is a driver and his mother a nurse, later a homemaker. After his commercial apprenticeship he continues to work several years in the same communal administration as a commercial employee. He then moves to a large insurance company, attends the Higher Commercial School and becomes controller. Following this he changes to a large bank, where he occupies a staff function in the financial research department.

Interviewee #23: Male, Engineer, *1963, Industrial-Management Career, married, 2 children. He grew up on a farm and made then an apprenticeship as electronic technician. Following the Higher Technical School he joins directly the firm in which he is still working, in the construction-material sector (very large and operating worldwide). In the beginning he worked as normal engineer, then moved as a project manager to a plant in another part of Switzerland. Then he came back, was leader of an IT-project and then became member of a staff-group, who is responsible for the optimisation of the electronic domain. In the next months he intends to become self-employed and to take over a small service-business from his father-in-law.

Interviewee #24: Male, Engineer, *1955, Service-Staff Career, married, 2 children. His father worked as mechanic and then as a back-office employee, his mother, following an apprenticeship as saleswomen became a homemaker with the family starting. He chose an apprenticeship as mechanical drawer (Maschinenzeichner) and then a further education as electric engineer at the Higher Technical School. He began his occupational career as developer in a large telecommunication firm, changes then to the training of the apprentices and finally in the human resource department. After the split-up of the firm, he joins a middle-size facility-management company where he is currently responsible of human resources management.

Interviewee #25: Male, Engineer/ Architect, *1953, Small Firm Career, married, 1 child. He is the son of a self-employed merchant and a secretary (only part-time after the birth of the first child). He is fascinated by architecture, makes an apprenticeship as drawer and then the Higher Technical School as construction engineer. He then works in two smaller, but ambitious architectural businesses and quickly starts his own business with a partner. He is currently still the owner of the business with about 10 employees.

Interviewee #26: Male, Engineer, *1964, Small Firm Career, living with partner, no child. When he is about 12 years his father starts his own business in the construction branch, his mother is a housekeeper. He attends an apprenticeship as construction drawer and then goes to the Higher Technical School, specialising in Climate-Technology. Following certain hesitations, he takes over the business of his father and is currently owner of a small construction business with about 25 employees.

Interviewee #27: Male, Engineer, *1931, Small Firm Career, married, 5 children (4 from a first marriage). His father was a mason, his mother homemaker. After an apprenticeship as construction drawer, he graduates as a construction engineer at an evening school. He works in several small architectural businesses as an engineer and then for a communal administration. Finally he accepts an offer of a cousin to enter the family business and becomes partner in a medium-size architecture and construction firm. He is currently retired, but has still an office in his former firm.

Interviewee #28: Male, Engineer, *1948, Industrial-Management Career, married, 3 children. He is the son of a chief-accountant (in a governmental firm) and a tailor. He makes his apprenticeship, far from home, as a mechanical drawer in a large industrial firm. After the Higher Technical School he becomes director of a medium-size firm in the tourist- and transportation sector. He then returns to industry, first as sales engineer and then as manager in the machine industry (large firm). He is forced to close "his" unity and begins to work as a manager in another firm (medium sized) in the machine sector and finally as a researcher in the metal/ chemical industry.

Interviewee #29: Female, Business Economist, *1968, Financial Career, married, no children. Her father is a commercial employee, her mother homemaker. After the Higher Commercial School she makes a quick ascension in a large firm in the textile selling business, specialising in accounting. She then moves to a medium-sized private educational institution, where she currently is responsible for controlling and accounting.

Interviewee #30: Male, Business Economist, *1948, Financial Career, married, 2 children. As a bit of an exception, his father is dentist and his mother musician. He begins and quits High School and then attends a commercial apprenticeship. After the Higher Commercial School he begins to work with one of the large accounting firms and then becomes project-leader in a service firm in the IT-domain. With about 40 years he becomes independent and owns now a small revision firm.

Apendix 4: Article in the Journal “Inline”

Karrieren auf dem Prüfstand. Eine Studie zu den Karrieren von FH-AbgängerInnen im aktuellen Inline

Die in der Wirtschaftsliteratur heraufbeschworenen Karrieretrends sind vielfältig und schnelllebig. Wie steht es aber wirklich mit den Karrieren? Welche Berufsverläufe gewinnen heute an Bedeutung, welche drohen als Sackgasse zu enden? Und: welche Karrieren schlagen Ingenieure und Betriebswirte mit FH-Abschluss heute ein? Diese Fragen stehen im Zentrum einer Studie die Felix Bühlmann von der Universität Lausanne zusammen mit FH Schweiz durchführt.

Die Berufskarriere entwickelte sich in den letzten 50 Jahren zu einem der wichtigsten Kanäle des sozialen Aufstiegs. Zusammen mit dem Bildungssystem gilt sie als Garant einer offenen, chancengleichen und dynamischen Gesellschaft. Neben der Ausbildung, dem Talent und dem Willen beruhte die archetypische Erfolgskarriere der Wirtschaftswunderzeit auf einer spezifischen Organisation des Wirtschaftslebens. Sie bedurfte grosser Unternehmen mit komplexer hierarchischer Struktur, die es erlaubte, gleichzeitig zwischen verschiedenen Unternehmenseinheiten horizontal zu rotieren und vertikal aufzusteigen.

Seit der wirtschaftliche Aufschwung Mitte der 1970-er Jahre ins Stocken geriet, stellen immer mehr Unternehmen die organisatorischen Bestandteile in Frage, die bis anhin als eigentliches Fundament der „Karriere“ galten und erproben neue Formen der organisatorischen Unternehmensoptimierung. Verflachungen der Betriebshierarchien, Projektmanagement, Teamorientierung oder die Neuausrichtungen ganzer Abteilungen und Produktionszweige lassen neue Karrierepfade entstehen und rücken auch alternative Karrieren jenseits der Grossunternehmen wieder in den Vordergrund.

Diese Veränderungen werfen Fragen auf, die nun eine Studie der Uni Lausanne und FH Schweiz aufgreift: Wie wirken sich die Neugestaltung der betrieblichen Landschaft auf die Karrieren in der Schweiz aus? Wie haben sich die Berufsverläufe in den letzten Jahrzehnten verändert? Welche neuen Karrierepfade sind am entstehen, welche schon ausgetrampelt oder verwachsen?

Die Studie widmet sich vergleichend sowohl HTL-Ingenieuren und HWV-Betriebsökonomen. Gerade dieser Vergleich soll es ermöglichen, die Ursachen der Unterschiede und Gemeinsamkeiten in der Entwicklung der beiden Berufsfelder detailliert herauszuarbeiten und die Konsequenzen für die Zukunft abzuschätzen und sichtbar zu machen. Im Vergleich der zwei Berufsgruppen erlaubt diese Studie erstmals einen breiten Überblick über den Karrierenverlauf verschiedener Altersklassen, Disziplinen, Wirtschaftsbranchen und Sprachregionen zu gewinnen.

Als Interessenvertreterin der FH-Abgänger und FH-Abgängerinnen ist FH-Schweiz darauf angewiesen, die Berufswege ihrer Mitglieder detailliert zu kennen und den Stellenwert des FH-Titels in einer langfristigen Perspektive in der Praxis evaluieren zu können. Auch Sie als FH-Mitglied profitieren von der so geschaffenen Transparenz und können sich dank dieser Studie einen globalen Überblick über die heutigen Karrieremöglichkeiten verschaffen. Neben einem breiten Beschrieb der aktuellen Karrierewege, gilt ein besonderes Augenmerk den „versteckten“ Determinanten des Berufsverlaufes. Nicht selten wirken ja die soziale Herkunft,

der Einfluss formeller oder informeller Netzwerke oder die familiäre Situation massgeblich auf den Berufsverlauf ein.

Die Studie besteht aus zwei Teilen: Im Fragebogen, der einer Auswahl von FH Mitgliedern im aktuellen Inline beiliegt, stellen wir Ihnen einige Fragen zu Ihrer Ausbildung, Ihrem Berufsverlauf, Ihrer familiären Situation und Ihrem persönlichem Hintergrund. Der Fragebogen ist leicht auszufüllen und dauert lediglich 15 Minuten. Kernstück bildet dabei ein tabellarisches Frageraster in der Mitte des Bogens, mittels dessen Sie ihren Berufsverlauf mit einigen einfachen Angaben rekonstruieren können. In einem zweiten Schritt möchten wir mit einer kleinen Auswahl derjenigen, die den Fragebogen ausgefüllt haben und die sich dafür bereit erklärt, ein offenes und vertiefendes Interview führen. Dies sollen es erlauben, noch besser zu verstehen wie Sie als Ingenieur und oder als Betriebswirt Ihren Berufsweg erleben, wie Sie ihn deuten und welche Strategien und Verhaltensweisen Sie im Laufe der Jahre entwickelt haben.

Wir hoffen, Sie unterstützen diese Studie indem Sie den Fragebogen ausfüllen und ihn mit dem beigelegten, frankierten Rückantwortcouvert retournieren. Bei allfälligen Fragen, können Sie sich gerne an Felix Bühlmann wenden. Seine E-mail Adresse lautet: felix.buhlmann@unil.ch

Text Kasten

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Index Figures

Figure 1: Theoretical Model of Achievement Career as Institution	30
Figure 2: Insertion, Deletion and Substitution within Optimal Matching Analysis	77
Figure 3: Men's Parents Educational Level: Population, University Students and HOS-Students (2005)	90
Figure 4: Father's Occupational Position: University Students and HOS-Students (2005)	91
Figure 5: Strata of Origin of Business Economists and Engineers: University Compared to HOS	92
Figure 6: Proportion of Women Among Engineers and Business Economists (1970-2005)	123
Figure 7: Average Age and Variation of Age of Engineers and Business Economists (1970-2000)	125
Figure 8: Jobless Rate of Engineers and Business Economists by Cohort (1970- 2000)	128
Figure 9: Type of Employment Contract of Engineers and Business Economists (1991-2006)	129
Figure 10: Evening/ Night-Work of Engineers, Business Economists and Active Population (2005)	133
Figure 11: Partner's Educational Level of Engineers, Business Economists and Active Population (25-35)	134
Figure 12: Partner's Educational Level of Engineers, Business Economists and Active Population (35-45)	135
Figure 13: Partner's Educational Level of Engineers, Business Economists and Active Population (45-65)	136
Figure 14: Partner's Employment Status of Engineers, Business Economists and Active Population (25-35)	137
Figure 15: Partner's Employment Status of Engineers, Business Economists and Active Population (35-45)	138
Figure 16: Partner's Employment Status of Engineers, Business Economists and Active Population (45-65)	139
Figure 17: Partner's Employment Rate of Engineers, Business Economist and Active Population (25-35)	140
Figure 18: Partner's Employment Rate of Engineers, Business Economist and Active Population (35-45)	141
Figure 19: Partner's Employment Rate of Engineers, Business Economist and Active Population (45-65)	141
Figure 20: Dendogram (with Rescaled Cluster Distance)	146
Figure 21 : Marriage, very late children (N= 81; 21.0%)	147
Figure 22 : Early Marriage and Children (N=93; 24.2%)	148
Figure 23 : Single, very late Children (N=119; 30.9%)	149
Figure 24 : Early Marriage, late Children (N=92; 23.9%)	150
Figure 25: Dendogram (with rescaled cluster distance)	165
Figure 26: Financial-Banking Career (n= 74, 16.8%)	167
Figure 27: Technical-Industrial Career (n=38, 8.6%)	169
Figure 28: Staff Career in the Service Sector (n=97, 22%)	171
Figure 29: Industrial Management Career (n=75, 17.0%)	173
Figure 30: Career in Small and Middle Firms (n=30, 6.8%)	175
Figure 31: Financial Career (n= 91, 20.7%)	177
Figure 32: Dendogram (with Rescaled Distance)	180
Figure 33: Correspondance Analysis Relating Career Types to Family Types	195

Index Tables

Table 1: Educational Level of Upper Management Members (1980, 1990 and 2000)	93
Table 2: Educational Level of Individuals with a Net Annual Salary Higher than 130'000 (1991 – 2005)	94
Table 3: Composition of the Sample in Regard to Gender, Cohort, and Employment Status.....	101
Table 4: Composition of Qualitative Sample in Regard to Career-Type and Cohort.....	105
Table 5: Absolute and Relative Numbers of Engineers and Business Economists (1970 – 2000)	123
Table 6: Distribution of Engineers and Business Economists among Economic Sectors (1970 to 2000)	126
Table 7: Family Status According to Age Class of Engineers, Business Economists and Population (1970 – 2000)	143
Table 8: Frequency of Types of Hierarchical Changes	155
Table 9: Frequency of Firm Shifts	156
Table 10: Frequency of Hierarchical Attainments and Average Age	157
Table 11: Anova Analysis of Orderliness, Loyalty and Success by Type.....	183
Table 12: Anova Analysis of Orderliness, Loyalty and Success by Type (Shortened Trajectories).....	185
Table 13: Anova Analysis of Orderliness, Loyalty and Success by Cohort.....	189
Table 14: Anova Analysis of Orderliness, Loyalty and Success by Cohort (Shortened Trajectory)	191
Table 15 : Multinomial Regression Analysis of Types by Cohort, Gender and Discipline	193
Table 16 : Crosstab between Career Types and Family Types (in %)	196
Table 17 : Multinomial analysis of family-trajectories (odds ratios)	198

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