

**Exploring the Link between Tacit Knowledge and Assessment Mechanisms on
Managerial and Professional Job Markets: Theoretical Challenges and
Empirical Pitfalls**

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1. Introduction

Tacit knowledge features the link between the process of skill recognition and workforce assessment mechanisms and is thus fundamental for the labor process and for the selection of new managers and professionals: Selection processes of new recruits play a crucial role in many advanced industrial societies and for what Finegold and Soskice (Finegold, 1999; Finegold and Soskice, 2001) called a *low-skill equilibrium*. This describes a state which results from a self-reinforcing network of societal and state institutions which interact to stifle the demand for improvement in skill levels which leads in many cases to poorly trained managers and workers whose quality of performance of goods and services is low. To understand both the labour process and the coordination mechanisms on labor markets, it is thus central to understand the nature of assessment mechanisms and how they are (or can be) shaped (Judge et al. 1995; Heslin, 2005). However, the nature of assessment mechanisms requires, in my view, broadening traditional perspectives of HRM theory taking into account the limitations of rationality in economic coordination.

This paper will use a quantitative study of potential managers and professionals who transition from higher education institutions to the labor market to explore the empirical pitfalls and theoretical challenges of a critical analysis of assessment mechanisms with traditional theoretical concepts and to propose an additional theoretical angle that allows for a comprehensive understanding of assessment processes and the role of tacit knowledge. In particular, the paper will draw on an initial testing in order to show how the theoretical perspectives can be advanced by revisiting empirical results. The study was carried out between 2001 and 2004. Data were obtained from business school graduates of a large Austrian university and a well-known Austrian *polytechnic*, both being part of two “retrieval waves” of a longitudinal study, the Vienna Career Panel Project (ViCaPP). About 708 standardized questionnaires were returned, including a broad range of data on socio-economic, social-psychological attributes, and career outcomes.

Whereas in the beginning my main research question was to understand the variations in terms of graduates attributes related to differences in career outcomes (indicators for career success), the focus of the study as well as the theories used to interpret the data changed during the research process. These developments included a shift toward analyzing assessment processes as HR practices, and as rational optimizing strategies on a socio-structural level of analysis. I employed Bourdieu’s concepts of economic fields and habitus in order to develop an interpretative perspective re-

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conceptualizing careers as work life trajectories at the intersection between individual biography and societal history (see also Grandjean (1981)). This re-conceptualization of careers emerged in the process of data interpretation and is now further developed and backed up by theoretical reflections. The Bourdieusian understanding of the economy, which is well-established in sociological analysis, but has not easily been taken up in the study of personnel assessment and selection, has proved to be a valuable perspective aiding the understanding of reproductive logics of the firm, the emergence of organizational HR practices, and the recruits' and firms' dispositions, preferences and perceptions. Furthermore, the life course literature initiated to shape the process of interpretation and stimulated further empirical and theoretical reflections on primarily the social-structural and historical effects on labour processes.

At the beginning of the empirical research project these outcomes were neither planned nor completely foreseeable. Rather, results of the study started to make sense throughout the different phases of reflection and were driven by engagement with the literature on the socio-economics of post-industrial labour markets, the engagement with social theories (in particular the field concept as proposed by Bourdieu (2005) and similarly Fligstein (2001) as well as the confrontation with the life course paradigm (Settersten, 1999; Mayer, 2009). For this reason, and also because social scientists show increasing interest in the resolution of coordination problems, my research can be an insightful example of how existing theories can be applied to specific contexts, how specific contexts (managerial and professional job market) can bring insights in other contexts (standard and non-standard work arrangements in other occupational fields), and how under certain circumstances, quantitative research can stimulate advancement of existing theories.

Following the course and progress of this research project, the paper will explicate and discuss some general issues regarding the empirical study: (1) The following section starts out with some general remarks on the role of tacit knowledge for the resolution of coordination processes, in particular in relation to assessment mechanisms. (2) Then some background information of managerial and professional careers in an Austrian context, data collection and methods will be outlined. (3) The subsequent section of this paper will give account of the data analysis with the particular focus on the development of an alternative interpretative angle on the relation between tacit knowledge and assessment mechanisms. (4) The discussion and conclusion section seeks to further examine some aspects of this research process, and possible contributions to a resource-based model of the development of a longitudinal perspective on careers.

2. Tacit Knowledge, Organizational Fields and Recognition Processes

Tacit knowledge: Knowledge is a highly critical resource of firms and economies (Quinn, 1992; Drucker, 1993). A recent strand of research focused on the importance of “tacit knowledge” for sustaining firms competitiveness (Hall, 1993; Teece, 2009) and organizational learning (Nonaka, 1994; Senker, 1995). Besides the discussion for the development of a coherent conceptual framework integrating micro-level (learning capabilities) and macro-level societal aspects, it was mainly the process of knowledge creation (Arthur and Rousseau, 1996) or the organizational learning process to which scholars drew their attention (Lam, 2000).

We all seem to have a certain understanding of what is knowledge, and drawing on Polanyi’s distinction between explicit and tacit knowledge, we may understand explicit knowledge as one which can be transmitted to others through formal, systematic language, and tacit knowledge as understanding embedded in people’s experiences (Polanyi, 1966). Such tacit knowledge is difficult to communicate and to transfer to others. It is personal knowledge because it is attained through first hand experiences and it is deeply rooted within the person (Nonaka, 1994). In contrast to information, which may be thought of as a “flow”, knowledge is considered as “stock” or “base”. For instance, a young professional may receive information but this information makes only one part of his stock of knowledge. According to Lam, knowledge can reside at individual and collective level (Lam, 2000).

This immediately raises the question of how the different forms of knowledge are intertwined, or how tacit knowledge becomes explicit in the labor and assessment process. These issues could be answered by Hall’s argument that the conversion of tacit knowledge to explicit knowledge – “articulation”- makes it possible to share knowledge that was previously not accessible (Hall, 2002). On labor markets, when a potential recruit or young manager is able to articulate the thinking and expertise that is behind the mere educational experience, then information can be incorporated by the firm and thus create new knowledge and facilitate organizational learning. Incorporation and creation of knowledge is crucial for organizational learning and competitiveness (Grant, 1996). In order to achieve this goal firms assess potential young managers or professionals and choose rational strategies to maximize their knowledge base.

However, labor markets are specific in several aspects, which limit considerably firms maximizing decisions: What is sold on labor markets is human activity, which naturally involves explicit and tacit knowledge which shapes the perceiving, interpreting, and categorizing of information on the basis of which new knowledge is created. The

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predominant idea in orthodox economics that firms are able to estimate productivity of the workers which decides the salary or who gets recruited may be inaccurate. First, as productivity is hard to measure firms decisions are influenced by many explicit and implicit factors e.g. ethnicity, gender, social and educational background. Different factors entail diverse opportunities which complicate the relation to productivity (Granovetter, 1988; Bourdieu, 2000). Second, because interests are central to labor markets. Activities of human beings with interests of their own are sold. These interests may lead actors into a subjective dialogue with the limited subspace in which they interact (e.g. department within one firm of a specific industry) until they have stabilized in the limited subgroups of people their own perception of that announced post or the contractual relation.

If we assume a world of complete information (i.e. all information is known), independent decision-making and fixed preferences (Goffman, 1951; Schein, 1980; Luhmann, 1991; Weber, 2005), quantitative analysis would generate empirical findings, which would most probably correspond to that low skill equilibrium invoked by Finegold. According to Kirman (1992) economic analysis has already shown that global behavior is highly dispersed behavior on the parts of the individuals, but is capable of producing very stabilized overall aggregated behavior which in fact, as is argued here, results in a construct of the “representative agent” matching up to the objective probabilities. But doesn't this raise a certain paradox as concerns low skill levels in imperfect markets? Why is it that firms, which are limited in choosing (short-term) optimizing strategies due to uncertainty and lack of information still reach a low-skill equilibrium that is argued elsewhere to be the outcome of optimization? Here I draw attention specifically to the employment of low skilled managers and professionals as quasi-optimal strategy. In the following sections I will discuss why such strategies, despite a presumed lack of rationality, seem to correspond to the overall logic of optimizing.

Organizational fields and recognition: According to Bourdieu the economy can be conceptualized as a field (as can be an industry or firm) which represents a structure of actual and potential relations (Bourdieu and Wacquant, 1992; Fligstein, 2001; Bourdieu, 2005). Each field has its own logic and social structure, for example organizations are composed of power relations between relevant actors (i.e. senior and junior managers) which depend on the volume and structure of capital and its various combinations they possess. In order to pursue my initial research interest on the role of tacit knowledge, I decided to look at the embodied form of capital as candidates' implicit assets and properties. Embodied capital cannot be transmitted instantaneously (unlike money or property rights) and remains marked by its earliest conditions of acquisition which

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determine its distinctive value. Its transmission is best hidden, so that it receives a higher weight in the reproduction processes of the firm (Bourdieu, 1977; Bourdieu, 1986). For the study of assessment mechanisms, this would imply that higher weight is given to candidates' implicit "hidden" characteristics and competences.

Cultural capital, technical capital, and commercial capital, which exist in the objectivized form (equipment, instruments), have also embodied components (skill and competence). In addition, social capital comprises the totality of resources, including information, which may be activated through a "more or less mobilizable" network of relations. We may indeed observe that Bourdieu (2000) refers to network ties and its related power including informational power. In his work *Distinction* (Bourdieu, 1986) he describes social capital in terms of relationships of mutual *recognition* based upon membership in social networks and group or class membership. On this basis, I argue that social capital matters for economic coordination because it involves relationships of mutual recognition and knowledge, which both create the basis of the mastery of any symbolic resources, in other words *symbolic capital*. As a power in the case of employees' commitment to a firm symbolic capital functions as a form of credit, which presupposes trust and belief of those upon which it bears. As such, we may assume the positive assessment of a young manager is effective if the firm (or the person entrusted with representing it) believes it - as a result of the overall structure of the field - to be so. Symbolic capital is *internally recognized* by the field (e.g. by other managers) and *externally recognized* by the economic field as a whole or other fields such as the political and legal field (Iellatchitch *et al.*, 2003).

Embodied capital is converted into what Bourdieu calls the *habitus*. I argue that this concept relates to both the *embodied* knowledge at individual level and the *embedded* knowledge at collective level (Lam, 2000). The habitus is seen to consist of dispositions, schemas, forms of know-how and competence, all of which are embedded in the social context, and thus socially structured and determined (Bourdieu, 1990). The habitus with its underlying grammar of action shapes a person's pre-understanding and dispositions which guide attention to particular characteristics of a situation, in other words the habitus makes people disposed to recognize certain situational features more than others. We may even go one step further, and argue that as a consequence of the diversity of decision situations and manager's or professionals' limited capability (Simon, 1957) and disposition to perceive this diversity, they resort spontaneously to a set of general laws of behavior. Despite adhering to the strict principle of rationality when assessing candidates, the firm (or its representative) is guided by "*reasonable*" strategies, which are grounded in the cognitive processing of the situation to which the act of processing is reciprocally

related. This is not to say that reasonable actions are only anchored in the socially structured habits and propensities but that the agent's schemes of perception and appreciation are the product of the collective and individual history, which Bourdieu described as the „collective individual“. Interestingly such an approach seems to go far beyond the requirements usually made by quantitative studies. I agree, however, that such an approach should aim at going further than pure description of what has actually been assessed and – if possible, open future research avenues for both quantitative and qualitative studies which look at the underlying logics rather than the ex-post rationalization of assessment procedures.

In the subsequent section I will provide an example of a concrete first quantitative testing of (1) graduates attributes and their aspirations towards different managerial and professional work arrangements as well as (2) their first career success here for simplicity in terms of income. Whereas the first aspect refers to the outcome of the formation of reasonable expectations towards accessing possible positions by young manager's and professionals, the second aspect is related to income as reward (recognition) for assets including explicit and tacit knowledge. Rather than drawing primary attention to the data analysis and outcomes, which serve here rather as illustration than a profound testing, the paper wants to highlight possible explanations of these findings against the background of above theoretical explications.

3. The empirical analysis: Background, Instrument, and Data

Background: At the end of the 20th century, labor process analysis in some European countries predicted a development from long-term employment characterized by well-defined professions and skills towards a more flexible use of labor based on atypical or non-standard work arrangements (Keller and Seifert, 1995; Bosch, 2001). Similar developments have happened even earlier in the United States and the UK (Capelli *et al.*, 1997). The overall logic had been one of mutual long-term commitment, and HRM practices centered on employee development and career planning. Flexibilisation of work, technical innovation and changed labor market structures thus meant profound changes to the Austrian system which we will here look at in more detail.

Against this backdrop, I intended to research new forms of employment and related assessment mechanisms, resulting from increased flexibilisation and structural changes of labor markets. On the individual level, I wanted to investigate whether flexibilisation of work in terms of alternative work arrangements, and whether the flexible use of labor in recruitment functions in the same way for different graduates. For this, graduates' attributes and aspirations towards different work arrangements should

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bring insight into whether different individuals aspire towards different work arrangements or not. I thus considered a firm's or employer's attractiveness as well as the attractiveness of non-standard work arrangements from the graduates' perspective. This opened the possibility to go beyond a firm or employee ratings, and gain some valuable insight into the attractiveness of various work arrangements independent from the concrete work setting. Finally, the study investigated the consequences of individual and socio-structural attributes on income as one main career outcome. The latter reflected how much weight was given by the employer (or by clients in case of the self-employed) to the individual repertoire of personal attributes. In particular, it seemed interesting to look at formal knowledge associated to educational attainment and its effects on preferences for specific work arrangements and on income.

In order to pursue the initial research questions, data were obtained from business school graduates of a large Austrian university and a well-known Austrian *polytechnic*, both being part of the Vienna Career Panel Project (ViCaPP; see www.vicapp.at). The Austrian labor market is characterised as most advanced Western countries by standard and non-standard work arrangements. Moreover new and more erratic career patterns have emerged during the last decades. In the career literature these patterns are referred to as boundaryless (Arthur *et al.*, 2005) or protean careers (Hall, 2004). These stimulated numerous revisions of the notion of career towards the inclusion of subjective dimensions such as satisfaction or estimation of success through relevant others (Barley and Tolbert, 1997; Hall and Chandler, 2005).

A total of 780 standardized questionnaires were returned, 47.9 per cent female and 52.1 per cent male. Given the Austrian educational system, the sample is quite typical for people graduating from business schools with the equivalent of an MBA. A considerable number of university graduates have worked at least part-time during their studies, in contrast *polytechnics*-graduates most commonly made an obligatory internship of several months, which was included in their curriculum (for a detailed overview see e.g. Hanappi (2007)).

Main variables: *Social origin* was entered into the analyses for a first testing of group differences of potential managers and young professionals from two business schools (university and polytechnic). Considerable empirical evidence (O'Donovan, 1962; Blau, 1967; Bourdieu, 1986; Whitley *et al.*, 1991; Kotter, 1995; Hartmann, 1996; Elman and O'Rand, 2004) suggests that social origin mostly represented by the educational and occupational level of parents, and the perceived gap of social status of parents and grandparents affects graduates' early careers, including aspirations and the

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first positioning. Most of these studies bring evidence that father's educational and occupational level and the attainment of high management positions of descendants are positively related. In a similar vein, Whitely (1991) reported positive effects of family history on career mentoring and career success. These findings support the argument that formal qualifications obey certain transformational laws based on reproductive mechanisms and are associated with different sets of social origin (Bourdieu *et al.*, 1981). The scales refer to social origin for the three groups of variables – volume of capital related to social class of origin, parental employment status and social family history as independent variables.

Psychological variables were entered into the analysis for group differences, and cannot be exhaustively outlined here. However, I will give a very brief overview of the sub-components of each of the central variables (adaptability, sociability, power and politics motives, and need for achievement). Even though sometimes slightly differently operationalized these dimensions are most commonly used in the analysis of careers. My study builds on the construction of the most relevant dimensions developed in the course of the Vienna Career Project (Mayrhofer *et al.*, 2005). Adaptability comprises in the current study “self-monitoring”, “flexibility” and “emotional stability”, and resembles those traits that refer to a person's ability to modify his or her behaviour in different social contexts. It is generally assumed that the more flexible or broad an educational background is, the higher graduates would rate themselves as adaptable. “Self-monitoring” refers to the ability to adapt one's own behaviour to external situational factors as an “active construction of public selves to achieve social ends” (Kilduff and Day, 1994; Gangestad and Snyder, 2000; Turnley and Bolino, 2001). “Flexibility” refers to “openness to experience” in the Big Five Model (Costa and McCrae, 1985, 1992a), which is defined by a high adaptation ability of individuals to all possible areas of life. Emotional stability measures, within the Big Five Model, the degree to which an individual is insecure, anxious, depressed, and emotional as opposed to calm, self-confident, and cool (Costa and McCrae, 1992b).

In addition, I considered *sociability* which sums up behavioural and personality traits such as “openness for social contacts” and “networking”. These traits induce individuals to establish and maintain contacts with many individual and institutional actors and to structure or maintain relationships with social fields that have only been weakly linked so far. In contrast, the dimension “openness for social contacts” is a personality trait, and implies that an individual is assertive and gregarious versus opposed to social contacts, timid and quiet (Mayrhofer *et al.*, 2002). “Networking” is operationalised in the Career Tactics Questionnaire KATA developed especially for

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ViCaPP to measure purposeful behaviour within the work context (Schiffinger and Strunk, 2003). It refers to the behaviour where people seek a variety of business contacts that may also spill over into private life and, therefore, comprises the establishment, maintenance and use of vocational and private contacts. Research shows that socially connected actors reduce information redundancy and bridge so-called structural holes (Burt, 1995). Furthermore, networking positively influences the hierarchical progression and/or salary level from middle to top management (Orpen, 1996; Mehra *et al.*, 2001). Thus, it is expected that high sociable individuals are more likely to have graduated at a university, as this field requires the establishment, maintenance and use of social contacts to a higher extent, and on a self-organised basis.

Power and politics motive summarizes “leadership motivation”, “self-promotion” and “demonstrating power”. These traits induce the actor to build and maintain status, dominance, power and a positive self-image. Studies by House *et al.*(1991) and Howard and Bray (1990) find a high correlation between “leadership motivation” and the person’s desire to take leadership positions and promotions. Finally, *the need for achievement* comprises the personality and behavioural traits “achievement motivation” and “conscientiousness”, and refers to the readiness of an actor to meet high vocational standards and to fulfil tasks with attention (Mayrhofer *et al.*, 2002). “Achievement motivation” refers to the willingness to reach high performance standards and to benchmark as well as to continually improve one’s own performance. Tharenou (1997) finds significant correlations between advancement motives, career motivation, and achievement motives, and career success. The second sub-dimension, “conscientiousness”, is one of the Big Five dimensions (Costa and McCrae, 1985) and is defined as the extent to which an individual is hardworking, organised, dependable, and preserving. Empirical findings from the field of psychology strongly support the correlation between conscientiousness and job performance (for example Salgado (1997)). Actors scoring high on the dimension “need for achievement” are associated with university due to institutional properties and requirements for high achievement motivation and conscientiousness, e.g. freedom to set performance standards, alternative levels of study programmes, no internal/structural compensation for achievement motivation. Most of the analysis of personality traits is deeply rooted in the psychological tradition mainly focused on the individual level. For this study the interpretation of psychological variables is more thought of as a measure for a socially constructed self-perception.

Little is known about the effects of educational credentials, in this case a masters degree from an Austrian university and a well-known polytechnic, on *aspirations* for

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alternative work arrangements. Are different work arrangements such as being employed in a firm, jumping from one consulting project to the next or being self-employed differentially attractive for different graduates? The current sample population finds itself in transition from university to labour market. Research departs from Bourdieu (2005), who argues that a number of reproductive mechanisms result from the structure of social arenas (e.g. we may think of a firm's department) which represent the patterned set of practices and objective power relations that shape the recognition of (educational) capital. Depending on the structure of the social arena (e.g. the firm as a field) educational capital which itself is produced on the basis of its proper institutional logic (e.g. practical, scientific) is differentially recognized. We may hence assume, that different educational degrees imply different chances of success implicitly contained in the diverse curricula (Sainsaulieu, 1981). These so-called objective chances are relevant for future job promotions. Through the ability to form practical anticipations – rather than make rational decisions - of what work arrangements are reasonable, graduates develop their own job aspirations (see alternatively fit perceptions by Kristof (1996)). The author assumes that graduates from university unlike the ones from polytechnics aspire towards more flexible work arrangements and less towards the traditional organizational career. This assumption is rooted in the belief that university curricula are oriented towards the creation of general knowledge and skills which render graduates more flexible in their career aspirations. For the investigation of *career aspirations* scales were developed in order to allow a differentiated four-field view of career aspirations as well as a bipolar view, of organisational and post-organisational fields. I stay here with the simpler and empirically significant bipolar view: The organizational field represents a typical company-world career. Post-organisational arrangements comprise consulting work (same employer, different projects), self-employment (stock of key clients and tasks) and free-floating professionalists (changing clients and high diversity of tasks e.g. an IT-expert) (Mayrhofer *et al.*, 2005).

A last research interest concerned the issue of educational attainment and its effects on income. Various studies have revealed a relationship between social origin variables, and career success (e.g. Barley (1997), Wayne (1999)). Here of particular interest is objective *career success*, which is, in the first instance, operationalized as gross annual income in Euro or ATS that was directly asked for the first job after graduation. Consistent with Dreher (1996), objective career success is represented by compensation. In addition, the number of subordinates and the percentage of management tasks was used, in order to represent objective career success. Along with numerous studies by e.g. Tharenou (2001) and Judiesch and Lyness (1999), in which objective success was

represented by the level in the managerial hierarchy and the span of control, the relative amount of management responsibilities and the number of subordinates are seen to be influential in predicting objective career success. Objective success was used in order to capture recognition by the employer or client. In addition, the analysis in particular of the anticipated evaluation of one's own success through relevant others (e.g. colleagues, superiors) is included here. It rather contributes to the understanding of the formation of reasonable anticipations, and is not employed as objective success criteria.

4. Data interpretation

(1) Graduates social background: How equal can a masters' degree be?

Results are revisited and summarized to build the point of departure for the subsequent data interpretation. Findings showed that graduates differed in terms of their father's educational level and their perceived social status. For the latter category, values of the grouped median are higher for polytechnics graduates, which indicates a higher gap in social status between grandparents and parents, for income and profession. Hence, *polytechnics*-graduates experienced a higher social advancement within family history, and, thus, grew up in a less stable social setting.

Analyses of the parental educational level show significant results found for the father's educational level. Basically, the parental educational level of polytechnics graduates is lower than that of the university graduates' (for more details see Hanappi (2007)). Mann-Whitney-U-Tests and Chi-Square-Test (Pearson) showed no significant differences between graduates' populations concerning *annual family income*, *educational level of the mother* and the third component of perceived social gap between parents and grandparents as represented by "*gap education*". However results for family income have to be qualified as this was asked on an absolute basis, and, thus, shows the *sum of earnings* from mothers' and fathers' occupational activities.

These differences between university and polytechnics graduates in some fundamental socio-structural factors give rise to the assumption that higher education degrees are inseparably linked to and embedded in the wider structures of "educational production" and the employment system. The education system, labour processes and assessment practices cannot be understood without taking into account the prevalence of the diversity of titles associated with certain socio-structural features which are assessed against a background of flexible forms of employment, short tenure, and the boundaryless career (Arthur and Rousseau, 1996). The influence of such structures on the education system, the labour market and assessment practices are so effective that it makes limited

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sense to speak of boundaryless careers, and if there are any they are quite rare. This answers the question of equality between a master's degree from university and from a polytechnic which are linked to different social features which frame future labour market opportunities (Abbott, 1988; Rosenbaum, 2004).

(2) Self-perception: Collective cognitive processes and employer attractiveness

As I proceeded in my analytical perspective to understand the mechanisms, which channel graduates from business schools towards the employment system, two further aspects emerged. First, educational attainment was closely linked to the graduates' *self-perception* concerning some career-related behavioural aspects such as networking behaviour in terms of seeking various and numerous contacts, leadership motivation, and demonstrating power and status. On these dimensions graduates from polytechnics scored higher. In order of their relative importance for the differentiation of the two samples: Demonstrating power and status, networking, and leadership motivation. Second, tight labour markets and flexible forms of employment resulted in an overall homogenous aspiration tendency of graduates toward the traditional organizational work setting. A major implication was that organizations were more attractive to future or young managers and professionals as they offer a clear structure that provides orientation in the early career phase.

A central finding from this was that polytechnics graduates focused more intensively on the acquisition of social capital (work-related network ties) and symbolic forms of cultural capital (power, reputation/status) both of which are (recognized as) essential for a successful career in this (boundaryless) employment system. In doing so, the graduates employed economic reason to form practical anticipations of their career (and learning) opportunities. Findings implied that polytechnics graduates perceived a higher need to "invest" in their careers than university graduates. Despite, or probably, due to their lower social status this group of graduates appeared to be more motivated to "make it by oneself". This however did not allow for the analysis of actual career-related behaviour since this aspect was not part of the present study. One can only make assumptions of possible cognitive processes which frame the perception of developing one's career, which are embedded and reinforced by an institutional context (the business school). In this sense results on career aspirations help to explore biographies and career trajectories arising out of several aspects of post-industrial work life and its social embeddedness (e.g. parental socio-professional status, social relations with friends and social support at individual level, family and employment policies at the context level).

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(3) Skill assessment, recognition, and career diversity

Following the above explanation, I re-visited empirical data to explore how graduates practical anticipation of their “space of possibles” matched with employers’ skill assessment and recognition. To explore this, I applied Bourdieu’s above discussed principles for economic action. Bourdieu (1977) understands the convertibility of cultural and social capital into economic capital as fundamental in the individual power struggle to advance one’s own position. In the case of business school graduates, the dominant paradigm turned out to be the same, which means that individuals aspire for work arrangements in which they anticipate that the convertibility of their capital is highest, in other words were their skills, competences, and knowledge is most rewarded in terms of mostly symbolic (status) and economic (income) capital. I drew my attention to the conversion of individual assets into income, the number of subordinates, and the percentage of management tasks. Here data analysis revealed no significant differences between the two graduate groups.

While it can be interpreted as initial effect of standardization that firms offer apparently “equal” entry positions to graduates and only assess later their competences, skills, and knowledge (in some cases assessment centres or test procedures help to gain a first general overview of candidates), it is also possible to look at these results in a different way: While entry salaries share the common feature to be homogenous within industries they entail different future career trajectories. In the case of business school graduates’ careers, this would imply different opportunities for promotions resulting from an assistant position versus a trainee program for junior managers. We may assume that when transitioning to the first job high importance is attributed to the possession of formal knowledge to compensate for the inability to recognize in the fast assessment processes the tacit knowledge of candidates. Thus, such assessments are often highly formalized and linked to rigid remuneration schemes in order to compensate for the lack of information. However, studies found that the importance of the educational capital in terms of educational attainment decreases with years of working experience (the acquisition of technical expertise) (Hungerford and Solon, 1987).

But why it is that career trajectories usually start to be more diverse and that inequalities increase in the mid- and late career phases? Despite variations in family responsibilities, characteristics of the industry, and macro-economic developments which all effect to a considerable part everyone’s work trajectories, it is to a high extent tacit knowledge embodied in our very biography and our relation to the various social networks as a whole which makes up careers. For the assessment of business school

graduates, I argue that formal knowledge, on the one hand, provides the basis to access certain work settings, and tacit knowledge, on the other hand, is assumed to serve as a multiplier of opportunities to advance within such settings. It is for this reason that, in my view, firms produce a low-skill equilibrium in that they socially structure the “war for talent” according to their perception of their own reproduction according to the principle of (short-term) reasonability.

5. Concluding Remarks

The above findings highlight two aspects relevant for the discussion on tacit knowledge and assessment mechanisms: First, the relevance of shared cognitive, and perceptual schemata, and dispositions among graduates, which I conceptualized as habitus (Bourdieu, 2005). Re-interpreting graduates as endowed with a habitus, helps to explain their self-perception and strategies as collective individuated by the fact of embodying qualification structures and anticipating assessment mechanisms. I argue that the above findings challenge atomistic/individualistic views. They explain economic reason as an encounter between dispositions and perceptual schemata that are socially constituted (in relation to a job market), and the qualification structures and assessment mechanisms, themselves socially constituted, of that market. Second, the idea that the firm’s (or clients’) recognition of candidates’ assets including all forms of knowledge is so constructed to ensure the reproductive logic of the organization which candidates are differentially able to anticipate.

Due to uncertainty and lack of knowledge both firms and candidates form practical anticipations which are embedded in the constraints of the social world and which shape their optimizing strategies. Furthermore we might conclude the following for the case of assessment processes: The individuals’ particularities which might delimit the application of general economic approaches to coordination practices on labour markets are argued to be aligned to the general logic of the economic field through the individuals ability to anticipate which assets will be recognized best. Although not intended in the beginning, we may conclude that individual agents end up with some form of well-suited orientation and aspiration toward particular work arrangements. Combining this view with an employment system perspective, I argue that individual strategies are aligned with assessment practices. What is generalizable despite the national and local focus of this study, is not the specific profile, perception, and aspiration of the graduates, but the insight that the general perceptions, features, and aspirations of a group can be an explanatory variable in some industries – which need to

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be identified in future studies. For instance, one study employing a resource-based approach to the longitudinal analysis of work trajectories (Hanappi and Bernardi, 2010).

The aim of this paper was to describe, explain, and discuss the initial approach and refine the application of theory through revisiting a quantitative study on the transition from the education system to the labour market. It was not at all my intention to present the entire empirical framework of the study of Austrian business school graduates as best practice. Rather, I referred to the empirical work in order to reflect upon the process of data interpretation with some of its ambiguities, which is usually a less common practice in academic publications. What can be learnt from this research is that quantitative analysis, which is considered as less open with respect to qualitative approaches (Alvesson and Deetz, 2000), can, in my view, aid also theory development and can be used in a productive way if data interpretations are driven by theoretical reasoning beyond mere testing.

TACIT KNOWLEDGE AND ASSESSMENT MECHANISMS

Please cite as conference paper.

6. References

- Abbott, A. (1988) *The System of Professions: An Essay on the Division of Expert Labor*, Chicago, University of Chicago Press.
- Alvesson, M. and Deetz, S. (2000) *Doing Critical Management Research*, London, Sage.
- Arthur, M., Khapova, S. and Wilderom, C. (2005) 'Career Success in a Boundaryless Career World', *Journal of Organizational Behavior*, 26, 177-202.
- Arthur, M. and Rousseau, D. (1996) *The Boundaryless Career: A New Employment Principle for a New Organizational Era*, Oxford University Press, USA.
- Barley, S. R. and Tolbert, P. S. (1997) 'Institutionalization and Structuration: Studying the Links between Action and Institution', *Organization Studies*, 18, 93-117.
- Blau, P. (1967) *The American Occupational Structure*, New York, John Wiley & Sons.
- Bosch, G. (2001) 'Konturen Eines Neuen Normalarbeitsverhältnisses', *WSI: Mitteilungen*, 54, 219-230.
- Bourdieu, P. (1977) *Outline of a Theory of Practice*, Cambridge, Cambridge University Press.
- Bourdieu, P. (1986) *Distinction: A Social Critique of the Judgement of Taste*, London, Routledge.
- Bourdieu, P. (1990) *In Other Words: Essays Towards a Reflexive Sociology*, Cambridge, Polity Press.
- Bourdieu, P. (2000) *Principles of an Economic Anthropology. S. 75-89 In: Smelser, Neil J. Und Richard Swedberg (Hg.), the Handbook of Economic Sociology*, Princeton: Princeton University Press.
- Bourdieu, P. (2005) *The Social Structures of the Economy*, Cambridge, Polity.
- Bourdieu, P., Boltanski, L., de Saint Martin, M. and Maldidier, P. (1981) *Titel Und Stelle: Über Die Reproduktion Sozialer Macht*, Frankfurt, Europ. Verl.-Anst.
- Bourdieu, P. and Wacquant, L. (1992) *An Invitation to Reflexive Sociology*, Chicago, University of Chicago Press.
- Burt, R. (1995) *Structural Holes*, Cambridge, MA, Harvard University Press.
- Capelli, P., Bassi, L., Katz, H., Knoke, D., Osterman, P. and Useem, M. (1997) 'Change at Work', *New York: Oxford University*.
- Costa, P. and McCrae, R. (1985) 'The Neo Personality Inventory Manual', *Odessa, FL: Psychological Assessment Resources*.
- Costa, P. and McCrae, R. (1992a) 'Neo Pi-R Professional Manual', *Odessa, FL: Psychological Assessment Resources*.
- Costa, P. and McCrae, R. (1992b) 'Normal Personality Assessment in Clinical Practice: The Neo Personality Inventory', *Psychological Assessment*, 4, 5-13.

TACIT KNOWLEDGE AND ASSESSMENT MECHANISMS

Please cite as conference paper.

- Dreher, G. and Cox, T. (1996) 'Race, Gender, and Opportunity: A Study of Compensation Attainment and the Establishment of Mentoring Relationships', *Journal of Applied Psychology*, 81, 297-308.
- Drucker, P. (1993) *Post-Capitalist Society*, Oxford, Butterworth-Heinemann.
- Elman, C. and O'Rand, A. M. (2004) 'The Race Is to the Swift: Socioeconomic Origins, Adult Education, and Wage Attainment', *American Journal of Sociology*, 110, 123-160.
- Finegold, D. (1999) 'Creating Self-Sustaining, High-Skill Ecosystems', *Oxford Review of Economic Policy*, 15, 60-81.
- Finegold, D. and Soskice, D. (2001) 'The Failure of Training in Britain: Analysis and Prescription', *Oxford Review of Economic Policy*, 4, 21-53.
- Fligstein, N. (2001) *The Architecture of Markets*, Princeton, Princeton University Press.
- Gangestad, S. W. and Snyder, M. (2000) '„Self-Monitoring: Appraisal and Reappraisal', *Psychological Bulletin*, 126, 530-555.
- Goffman, E. (1951) *The Presentation of Self in Everyday Life*, New York, Doubleday.
- Grandjean, B. (1981) 'History and Career in a Bureaucratic Labor Market', *American Journal of Sociology*, 86, 1057-92.
- Granovetter, M. (1988) 'The Sociological and Economic Approaches to Labor Market Analysis: A Social Structural View: Economic and Sociological Approaches'. In Farkas, G. and England, B. (eds) *Industries, Firms, and Jobs*, New York, Plenum, pp. 187-216.
- Grant, R. M. (1996) 'Toward a Knowledge-Based Theory of the Firm ', *Strategic Management Journal*, 17, 109-122.
- Hall, D. (2002) *Careers in and out of Organizations*, Sage.
- Hall, D. (2004) 'The Protean Career: A Quarter-Century Journey', *Journal of Vocational Behavior*, 65, 1-13.
- Hall, D. and Chandler, D. (2005) 'Psychological Success: When the Career Is a Calling', *Journal of Organizational Behavior*, 26, 155-176.
- Hall, R. (1993) 'A Framework for Linking Intangible Resources and Capabilities to Sustainable Competitive Advantage', *Strategic Management Journal*, 14, 607-618.
- Hanappi, D. (2007) *Early Careers of Managers and Young Professionals an Integrative Approach to Contemporary Careers*, Mering, Hampp.
- Hanappi, D. and Bernardi, L. (2010) *Gender, Work, and Vulnerability: A Multilevel Live Course Perspective*, 28th International Labour Process Conference, March 15-17, 2010 New Jersey.
- Hartmann, M. (1996) *Topmanager: Die Rekrutierung Einer Elite*, Campus Verlag.

TACIT KNOWLEDGE AND ASSESSMENT MECHANISMS

Please cite as conference paper.

- House, R. J., Spangler, W. D. and Woycke, J. (1991) 'Personality and Charisma in the U.S. Presidency: A Psychological Theory of Leader Effectiveness', *Administrative Science Quarterly*, 36, 364-396.
- Howard, A. and Bray, D. W. (1990) 'Predictions of Managerial Success over Long Periods of Time.'. In Clark, K. E. and Clark, M. B. (eds) *Measures of Leadership*, West Orange, pp. 113-130.
- Hungerford, T. and Solon, G. (1987) 'Sheepskin Effects in the Returns to Education', *The Review of Economics and Statistics*, 69, 175-177.
- Iellatchitch, A., Mayrhofer, W. and Meyer, M. (2003) 'Career Fields: A Small Step Towards a Grand Career Theory?', *The International Journal of Human Resource Management*, 14, 728-750.
- Judiesch, M. and Lyness, K. (1999) 'Left Behind? The Impact of Leaves of Absence on Managers' Career Success', *Academy of Management Journal*, 42, 641-651.
- Keller, B. and Seifert, H. (1995) *Arypische Beschäftigung Verbiten Oder Gestalten?*, Köln,
- Kilduff, M. and Day, D. (1994) 'Do Chameleons Get Ahead? The Effects of Self-Monitoring on Managerial Careers.', *Academy of Management Journal*, 37, 1047-1060.
- Kirman, A. P. (1992) 'Whom or What Does the Representative Individual Represent?', *Journal of Economic Perspectives*, 6, 117-136.
- Kotter, J. (1995) *Die Neuen Spielregeln Für Die Karrieren: Erfolg in Der Zeit Nach Den Großkonzernen*, (orig.) New York, Ueberreuter.
- Kristof, A. L. (1996) 'Person-Organization Fit: An Integrative Review of Its Conceptualizations, Measurement, and Implications', *Personnel Psychology*, 49, 1-49.
- Lam, A. (2000) 'Tacit Knowledge, Organizational Learning and Societal Institutions: An Intergrated Framework', *Organization Studies*, 21, 487-513.
- Luhmann, N. (1991) *Zweckbegriff Und Systemrationalität: Über Die Funktion Von Zwecken in Sozialen Systemen*, Tuebingen, Suhrkamp.
- Mayer, K. U. (2009) 'New Directions in Life Curse', *Annual Review of Sociology*, 35, 413-433.
- Mayrhofer, W., Meyer, M., Steyrer, J., Iellatchitch, A., Schiffinger, M., Strunk, G., Erten-Buch, C., Hermann, A. and Mattl, L. (2002) 'Einmal Gut, Immer Gut? Einflussfaktoren Auf Karrieren in, Neuen'karrierefeldern', *Zeitschrift für Personalforschung*, 16, 392-414.
- Mayrhofer, W., Steyrer, J., Meyer, M., Strunk, G., Schiffinger, M. and Iellatchitch, A. (2005) 'Graduates'career Aspirations and Individual Characteristics', *Human Resource Management Journal*, 15, 38-56.
- Mehra, A., Kilduff, M. and Brass, D. (2001) 'The Social Networks of High and Low Self-Monitors: Implications for Workforce Performance', *Administrative Science Quarterly*, 46, 121-146.
- Nonaka, I. (1994) *The Knowledge Creating Company*, Oxford, Oxford University Press.

TACIT KNOWLEDGE AND ASSESSMENT MECHANISMS

Please cite as conference paper.

- O'Donovan, T. (1962) 'Differential Extent of Opportunity among Executives and Lower Managers.', *The Journal of the Academy of Management*, 5, 139-149.
- Orpen, C. (1996) 'Dependency as Moderator of the Effects of Networking Behaviour on Managerial Success.', *The Journal of Psychology*, 130.
- Polanyi, K. (1966) *The Tacit Dimension*, London, Routledge and Kegan Paul.
- Quinn, J. B. (1992) *Intelligent Enetrprise: A Knowledge and Service Based Paradigm for Industry*, New York, Free Press.
- Rosenbaum, J. E. (2004) *Beyond College for All: Career Paths for the Forgotten Half*, New York, Sage Publications.
- Sainsaulieu, R. (1981) 'On Reproduction'. In *French Sociology, Rupture Ad Renewal since 1968*, New York, Oxford, Oxford University Press, pp. 152-170.
- Salgado, J. F. (1997) 'The Five Factor Model of Personality and Job Performance in the European Community', *Journal of Applied Psychology*, 82, 30-43.
- Schein, E. (1980) *Organizational Psychology* Eaglewood Cliffs, New Jersey: Prentice-Hall.
- Schiffinger, M. and Strunk, G. (2003) 'Zur Messung Von Karrieretaktiken Und Ihrer Zusammenhänge Mit Karriereerfolg Und Karriereaspiration'. In Hitzler, R. and Pfadenauer, M. (eds) *Karrierpolitik. Beiträge Zur Rekonstruktion Erfolgsorientierten Handelns.*, Opladen, Leske & Budrich, pp. 295-312.
- Senker, J. (1995) 'Networks and Tacit Knowledge in Innovation', *Economies and Societies*, 2, 99-118.
- Settersten, R. A. (1999) *Lives in Time and Place. The Problems and Promises of Developmental Science*, Amityville (NY), Baywood.
- Simon, H. A. (1957) *Administrative Behavior*, New York, MacMillan.
- Teece, D. J. (2009) *Dynamic Capabilities*, Oxford, Oxford University Press.
- Tharenou, P. (1997) 'Managerial Career Advancement'. In Robertson, T. and Cooper, C. L. (eds) *International Review of Industrial and Organizational Psychology*, New York, Wiley, pp. 39-94.
- Tharenou, P. (2001) 'Going Up? Do Traits and Informal Social Processes Predict Advancing in Management?', *Academy of Management Journal*, 44, 1005-1017.
- Turnley, W. H. and Bolino, M. (2001) 'Achieving Desired Images While Avoiding Undesired Images: Exploring the Role of Self-Monitoring in Impression Management', *Journal of Applied Psychology*, 86, 351-360.
- Wayne, S. J., Liden, R. C., Kraimer, M. L. and Graf, I. K. (1999) 'The Role of Human Capital, Motivation and Supervisor Sponsorship in Predicting Career Success.', *Journal of Organizational Behavior*, 20, 577-595.
- Weber, M. (2005) *Wirtschaft Und Gesellschaft*, Tuebingen, Mohr Siebeck, 1968.

TACIT KNOWLEDGE AND ASSESSMENT MECHANISMS

Please cite as conference paper.

Whitely, W., Dougherty, T. W. and Dreher, G. F. (1991) 'Relationship of Career Mentoring and Socioeconomic Origin to Managers' and Professionals' Early Career Progress', *The Academy of Management Journal*, 34, 331-351.