Universitat Ramon Llull

DOCTORAL THESIS

Title	**THE ADAPTATION CHALLENGES OF QUANTITATIVELY MINDED PROFESSIONALS: CERTAIN INDIVIDUALS IN UNCERTAIN TIMES**
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Unfortunately for her, however, this project will not end here. My obsession with Quants has only just begun.

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INTRODUCTION

A. Introducing the Subject

In many professional disciplines, the initial academic training of individuals can be very analytical and mathematically focused. This is not only the case in the natural sciences but also historically in the social sciences, like psychology and economics. In many of these professions however, like in the financial and professional service sectors, as newcomers become experts they are often faced with greater requirements to provide qualitative, client-facing work. Some of these individuals are not as prepared as others for this type of exposure to clients and struggle with the levels of ambiguity and work performances associated with these kinds of activities.

Individuals, with a predominantly mathematical training, that struggle with ambiguity and in some cases, exhibit a fairly closed mentality, are present in many industries. They can be found in all types of jobs, but are, in particular, very prevalent in the scientific professions like physics, Engineering, life sciences and others. Often, many of these same individuals, migrate to better paying jobs in the professional and financial service industries (Stewart 2009). Some of these individuals that reach management positions, sometimes "manage by the numbers" (Lord Kelvin 1891), stress mathematical rigor (Dupuit 1841) across most management decisions, and can exhibit a keen obsession with objectivity (Porter 1985), often stifling creativity and innovation (Jensen 2011). In many cases, as we shall see, these individuals themselves may pose a performance problem for companies as they attempt to adapt their professional identities to new environments.

Because of the Researcher's ease of access to this professional sector, several of our case studies focus on individuals that either work or have worked in investment banks. Investment banking is mainly concerned with creating financial instruments and providing financial advice, both often times, involving solving complex financial problems. For the most part, the initial training in investment banking requires the

ability to exercise extensive mathematical rigor in the development of these financial instruments and services. Subsequently, this field has historically attracted the most ambitious MBA students and professionals, exhibiting a passion for mathematics and finance. Entrance into many of the top investment banks is one of the most selective recruitment processes today.

Senior investment bankers must usually not only be able to exercise proficiency in this type of mathematical work, but also have the ability to exercise considerable influence and persuasion over their own clients, both in obtaining their business, as well as in the delivery of the advisory services to them. Many bankers are good at the analytical part of the work and often excel less in the client facing work. Some bankers, especially those quantitatively trained, can exhibit a fairly closed mathematical mentality and sometimes have problems dealing with the levels of ambiguity related to extensive client facing work.

For the purpose of this dissertation, I introduce the term "Quants" which can have three different meanings: a) individuals who love mathematics but exhibit an open mentality and are not my object of study; b) those individuals commonly referred to this way who are responsible for developing mathematical models in the financial services industry; c) those individuals whom Toulmin (2001) refers to as exhibiting a mathematical mentality, which is also fairly narrow and closed. It is these Quants, described by Toulmin (2001) as wearing "intellectual blinders", which are the object of this dissertation.

This work is an ethnographic study focusing upon what Toulmin (2001) describes as "mathematically minded individuals" who are committed to mathematical exactitude, often times resulting in a fairly closed mentality, and a consequent struggle to adapt to the demands of complex organizations. In all of the cases analyzed, one finds that much of this Quant conditioning is the result of the individual's cognitive style coupled with an extensive quantitative academic training.

Quite often, Quants in Toulmin's (2001) sense, attempt to turn the "uncertain world" that they face everyday into a world of so-called calculable "risk". They are predominantly individuals who believe that the larger the sample size, the more likely we are to converge upon a world "as it really is," and that more information always leads to more knowledge of the world "as it really is" (Blyth, 2010). For many, this mentality is part of their personal cognitive style, for others, it is part of the mentality of their profession that they have adopted. Many others however, feel very much at home with quantitative methods and love mathematics but do not exhibit this type of necessarily closed, mathematically minded mentality.

In studying quantitatively minded individuals, this study makes apparent that not only is their way of seeing the world as part of a "strong culture" (Kunda 2006), a major factor in their adaptation to the organization, but it is also in defining their professional identities (Pratt 2006, Barbeluescu & Ibarra 2008, Ibarra 2010, 2007). This professional identity development, which can be problematic and unstable (Kunda 2006), forms the basis of the individual's adaptation challenge vis-a-vis the organization. As such, this study focuses upon three often, related elements, each with an extensive academic literature: Identities, culture and the quantitative professional tradition. I take a narrative approach to looking at these three elements and their inter-relationships.

B. Aims of the Research

My primary aim is to understandbetter the process of identity development with respect to this predominantly closed, mentality of quantitatively trained professionals and the adaption challenges they face within the organization. The practices and strategies by which employees build and revise their identities in the workplace is at the heart of a growing stream of research (Barbulescu & Ibarra, 2008, 2010; Bartel & Dutton, 2001; Ibarra, 1999; Kreiner Hollensbe & Sheep, 2006; Pratt, 2000; Pratt, Rockmann & Kaufmann, 2006).

Through the development of the narratives, describing the adaptation challenges of the professionals under observation, this study hopes to give expression to a particular way of viewing, reasoning (Bonet et al 2001), knowing (Bou et al 2003, 2005) and speaking about the organization and its employees. I also look at the role of Rhetoric in this process of professional identity development. In studying a particular type of narrowly defined, worker mentality, one that has been formed as a result of a quantitative academic training, I hope to provide insights into aspects of today's organizational adaptation challenges that ultimately affect performance.

The cases that have been chosen are few but are studied in detail, over extended periods of time, using both ethnographic as well as primarily narrative methods. The objective is not to discover universal truths (Bruner 1990) but to shed light on the meaning-making systems of the participants. Most of the cases are based on European investment banks and companies that include a software company and a consulting company.

While the initial empirical work for this study began in 2002, the world economic events, since 2007, which have so far, pinnacled in the crisis of 2008, have also shown us what this sort of closed mentality can sometimes do to financial markets. It is these same types of individuals, who when operating within this rather rigid cognitive frame, in positions where they can exert considerable influence on society, and performing themselves in certain ways, that can affect us all very much. When most of our financial services industry and markets, have been run by individuals who believe that markets always act rationally (Blyth 2010, Fox 2009) and that human behavior is programmable (Taleb, 2007, Stewart 2009), helping to create the economic events that led to the 2008 Crisis (Blyth 2010, Soros 2009) then we should all have reason for concern.

This study does not intend to explain the causes of the recent financial crisis nor to prove or imply that these same individuals that had such a profound effect on the recent crisis, have struggled in their individual historical organizational performance.

In its reference to the crisis, it only intends to shed light on that mentality which was very present during the crisis as well as in many companies today, one where the concept of uncertainty is either dismissed for lack of understanding, or sometimes even worse, is wrongly understood.

C. The Importance of the Subject

Striving for Academic and Practical Relevance. In dealing with my research problem, I ask myself, "Will this research matter to anyone when I have finished? Or will it be only a piece of academic work of no practical relevance?" As I embark on my research, I learn that this 'rigor versus relevance' question is not new but something that Academia has been struggling with for some time.

"The principal symptom of this relevance crisis is that, as our research methods and techniques have become more sophisticated, they have also become increasingly less useful for solving the practical problems that members of organizations face" (Susman & Evered, 1978)

If my research is to contribute to the field of management science and provide value to managers, both scientific rigor and practical relevance of the research require attention. It is for these reasons that this study will speak to the research literature as well as, in particular, to my own experience. While the focus will be on adding value to both management science and practice, it will be within the contemporary academic research boundaries of this area of study.

Quant Organizational Adaptation and Performance. So why is the study of Quant identity development important and who should care? Why should anyone care that a professional, who has had a quantitative academic training, now exhibits a fairly closed mentality in his/her professional life? Is this an important factor in someone's adaptation within the organization? Does it affect one's ability to effectively work

within a team environment? What relevance could this have on the organization's performance?

According to Porter (1985), objectivity arouses passions as few other topics can. While it is a basic tenet of good government and basic justice, an excess of objectivity can crush creativity, innovation (Jensen 2002) and more importantly sound judgment (Porter 1985). In the professions, a trust in numbers is one of the most common expressions of objectivity. This study presents several Quants whose obsession with objectivity was a clear obstacle to their professional advancement with their firms and ultimately not only played a part in their adaptation but in the firm's performance while they were there.

Organizational literature has always spun around the question of how best to improve organizational performance. For example, there is a huge body of research on how to influence worker performance so that it is better aligned with the goals of the organization. One area that has received considerable attention is how effective leadership can make a difference to worker performance. Many have focused on leadership skills like emotional intelligence (Goleman 2006), storytelling (Brown, Denning, Groh & Prusak 2005), narratives (Denning 2007), imagination (Spender 2007), as well as other approaches whereby it is hoped that by developing certain skills, one is better able to shape employee agency and hence drive employee performance around the goals of the organization.

But can organizations shape employee agency without regard for employee identity development? And is the identity development of the leaders of the organizations themselves not also going to condition their approach to shaping employee agency? Will not leaders lead the same way they themselves learned (Bacchus 1997)? But what is it about Quant identity development that can make an individual so different professionally? Why is it important to talk about quantitatively trained professionals or Quants? Is this topic more relevant today than in yesteryear? Where is the research on this topic?

Organizations today spend hundreds of millions of dollars on corporate socialization and adaptation exercises in order to develop corporate cultures in pursuit of maximizing employee performance. Having a better understanding of professional identity development can be important in trying to adapt newcomers into the organization. Millions, if not billions of dollars, are spent globally every year to help employees assimilate into their jobs better and be more productive. Much of this is spent on global service companies in the professional and financial services (Maister 2006) where many newcomers arrive from technical and quantitative disciplines. It is in this respect that, a greater understanding and sensitivity to how workers assimilate themselves to new roles and positions, is a very important factor for effectively improving worker performance.

Quant Role Transitions. Quant role transitions, or work transitions involving individuals that are mathematically minded, exhibiting a fairly closed mentality and who often struggle with ambiguity, can be very difficult when they involve job positions involving greater levels of uncertainty. In the case of investment banking analysts, as an example, as they are promoted to more client facing positions, the levels of uncertainty increase as well as the need to be able to effectively apply persuasive selling skills in pursuit of business development.

Work role transitions pose significant identity challenges for the person undertaking the transition (Barbulescu & Ibarra, 2008, 2010; Becker & Carper, 1956; Hall, 1976; Louis, 1980; Strauss, 1977). The socialization of newcomers through the development and adoption of "culturally acceptable self" is also a challenge in many organizations (Barbulescu & Ibarra, 2008; Kunda, 1992; Lave & Wenger, 1991; Sutton, 1991; Van Maanen, 1998). Improving organizational performance is also of great importance academically to the world of management education, especially to those involved in organizational behavior.

It is the rise of the professional disciplines, which began in the eighteenth century, that mainly concerns the social sciences with the idea of prediction, social prediction. This same quest for certaintyhas predominated much of Academia for the last four hundred years (Toulmin 2001) and has driven the intellectual minds of many of our educators, especially in quantitative disciplines, to then deliver graduates to organizations where they must deal with business environments full of uncertainty and ambiguity. This problem is made worse by the fact that many of these quantitative, specialized graduates, sometimes exhibiting a Quant mentality, are today increasingly forced to become multi-disciplinary as the knowledge economy becomes more service oriented.

Quants and the 2008 Economic Crisis. Quite coincidently, this study deals with many contemporary issues, some of which are at the forefront of the economic turbulence which most of the world is still facing today since the second half of 2007. While this study began well before this crisis, it has been during this time that many of the assumptions and predictions that financial experts had made about the financial markets have come crumbling down, resulting initially in market turbulence that has put into question many underlying market assumptions.

For many well known financiers, including George Soros (2009), this crisis has made it clear that many in the social sciences, including Economics, needed to use somewhat different methods and standards from the natural sciences, "the way many of us in the financial markets have interpreted reality has to change, we cannot continue to make excessive claims about our ability to predict and explain social phenomena" (Soros 2009).

During the first half of 2008 this market turbulence that started in 2007 turned into what many described as the world's worst financial crisis since 1929. What exactly was the root of this crisis is still very much a question of speculation but what is clear is that much of the problems were caused by an overreliance on mathematically engineered financial instruments and models which failed. The "quantitative"

reasoning behind bankers and economists failed to take into consideration again the uncertain nature of human nature itself and our inability to predict human behavior.

It is this particular way of seeing the world around us, and how it influences our behavior, which is at the heart of this study. This mentality is not just about how the world is viewed but also of our understanding of how it works. This study is not focused on the causes of the Crisis of 2008, it is focused on those individuals, who, as a result of their quantitative training, have developed a somewhat closed mindset that conditions them on entry into the workplace. It is this conditioning and how it affects their adaptation that will be the focus of the analysis.

Many of these quantitatively trained professionals enter the workplace with a very distinct way of seeing the world as well as the people among them. This mindset itself seems to condition the way they see their peers where in many cases they question the importance and relevance of more qualitative mindsets, as well as their work. The study deals with the challenges that they face as, in many cases, they struggle to become socialized into today's pluralist organization. It is this professional identity development struggle that often impacts their overall performance and, as we shall see, is sometimes a critical element in the organizations' performance.

I have found no examples in the literature that deal with the identity development of quantitatively trained professionals, and how this mentality may condition their organizational adaptation and organizational performance. There is on the other hand, quite a bit of literature today regarding how the type of mentality, which struggles with concept of uncertainty, has affected world economic markets and is considered by many the direct result of today's predominant approach to management education (Taleb 2007, Stewart 2009, Blyth 2010, Ghoshal 2005).

There is also substantial literature on how many managers are obsessed with "managing by the numbers". Much of this literature is both for and against this approach. There is also much literature on how a cost benefit analysis (CBA) approach

is wrongly applied to many areas where mathematics is not a suitable means of analysis (Porter 1985).

My objective is to show that Quants, as defined in this study, not only may struggle with professional adaptation in different corporate environments, but also that changing this conditioning can be very difficult and sometimes even lead to a professional identity crisis under certain conditions. This topic is not only of concern to organizations, as it affects adaptation and subsequently performance but as we have seen since 2007, understanding better this mindset and its development is also important for society as a whole which is so dependent on the evolution of financial markets and the professionals that run these. While this Economic Crisis was never intended to be a focus of this study, the fact that one of the cases of the study occurred before and during the crisis, has helped shed light on this Quant mentality during a time of professional identity struggle.

D. Structure of the Thesis and a Chapter-by-Chapter Presentation

This thesis deals with an interdisciplinary problem and has two parts, one theoretical (Chapters 1-4), including the relevant literature review, and one empirical (Chapters 5-10). The first part deals with the theoretical perspective behind the study, which shows where the research is placed with respect to the current literature. This first section will become the basis for developing theory and for explaining the relationships between professional narrative identity-development, organizational culture and the quantitative mindset. The second part is the empirical section, which introduces the Epistemology, research questions and methodology. This is followed by the cases and then the findings and conclusions.

Chapter 1 - The Researcher's Journey & Motivation with a Preliminary Literature Review

This section describes the educational journey of the Researcher starting from University in Australia to later in the United States. It then describes his professional

beginnings that led him to a career in investment banking culminating over twenty years later, in an interest to enter the Academic world by way of starting a PHD program in Barcelona.

As the Researcher begins to look at different possible research topics, related to his observations at work, he embarks on a long exploratory Academic journey that takes him through different schools of thought while he is settling on those that he felt described well his area of investigation as well as how best to look at his phenomena.

Chapter 2 - Identity

This chapter focuses on why Identities are important. The analysis of individual identity concerns how a person constructs a particular version of himself or herself. It is the response to the question "Who am I?" But why is it that today in professional life (Ashforth 2001), we seem more challenged to answer this question all the time? Why is there more self-reflection associated with this question as well as more serious doubt than in the past? How an individual responds to this "Who am I", question, in his or her work setting has important consequences, for the priorities and motivations as well as the thinking and acting of the individual (Alvesson 2001, 2004).

In this chapter, I begin by looking at the evolution of the concept of identity from the philosophical foundations of the Essential Self, leading to the Pragmatists and eventually settling for identity as understood by the symbolic school of thought (Mead 1934, James 1950, Cooley 1964, Goffman 1959, Blumer 1969) where it is the individuals that make sense of their professional identity through shared meanings and values. I focus on a narrative basis for identity (Polkinghore 1988) and seek to interpret self-narratives, where individuals achieve their personal identities and self-concept through the use of narrative configuration and continuously struggle to keep "their narrative going" (Giddens 1991) using socialization and identity work techniques (Ibarra 2008, Pratt 2006).

Chapter 3 - Culture

This Chapter focuses on why is Culture important. The response to the "Who am I?" question also has consequences for the employee's sense of agency. The Quant culture is a very strong (Kunda 2006) part of their discipline (Toulmin 2001) and is what brings together their beliefs, customs and ways of seeing the world. Many organizations spend fortunes on attempting to instill an organizational culture (Schein, 1985; Kunda 2006) into their employees that will reflect its core values and beliefs with the goal of aligning these around the organization's mission and objectives.

In this chapter I look at the origins of culture in an organizational context and settle on the culture concept from the Symbolic School (Geertz 1973) that stresses the profound importance of shared meanings for any coordinated action (Alvesson 2002). In particular, I look at the role of communicative performances in developing culture and culture's subsequent role in the adaptation and socialization of the professionals.

Chapter 4 - The Quantitative Mindset in the Professions

As C. P. Snow argued in his book, *The Two Cultures* (1969), people in science see things very differently than people in the humanities. They tend to see the world through the "scientific" lens, whereas the "humanities types" tend to see things through a critical lens. An important attribute of the scientific community is their obsession with objectivity (Porter 1985), prediction and control rather than with interpretation.

In this chapter, I explore the Quantitative tradition in the disciplines which is present not only in those disciplines belonging to the natural sciences but also very present in the social sciences. In particular I look at the quantitative tradition in Engineering and economics and the role of Rhetoric in the quantitative culture.

Chapter 5 - Epistemology, Research Questions and Methodology

The epistemology is based on an interpretative approach following Weber (1897) and Schutz (1953). Following Alvesson (1994), the conceptual framework is used to "interpret", more than to guide or structure, the study. This ethnographic study positions the researcher as an informed observer (Flory 2008) writing an ethnography, which seeks to represent the cultures under observation as a logical system of rationalities, values, beliefs and actions (Harvey 1997).

The main research question is: "How does the identity development of quantitatively trained professionals, that exhibit a fairly closed mentality, affect their organizational adaptation?" The chapter also discusses several sub questions, which the study attempts to shed light on.

Ethnographic observation, in-depth interviews autoethnography, conducted over several months, are included as part of the fieldwork. The aim of this research is to explore the professionals and their work *in situ* in order to develop an understanding of how their mentality affects their work and what it means to have this mentality in accomplishing their work within a multi-plural setting, with particular emphasis on the role of narratives and storytelling (Czarniwaska 1997, Flory 2008). The interpretation of these interviews is carried out using narrative methods where the researcher's participation, described by Giddens (1991) as a "double hermeneutica", attempts to offer a fuller, more balanced analysis with deeper insights into experienced reality (Flory 2008). The selection of cases has been done, using conceptual sampling, on the basis of choosing them so as to have enough similarities between them, to be able to compare them and also differences, so that one can explore and analyze them in order to introduce diverse prototypes.

Chapter 6 - First Case Study: Quant Adaptation Issues in Investment Banking

The first case takes place in an Investment Bank. These are complex organizations where primarily most of the work is focused on doing financial transactions. While the work is very demanding, it is one of the highest paid professions and usually attracts

the "best and the brightest" MBA graduates and analytical professionals from all over the world. Newcomers usually begin developing financial models and performing other routine tasks necessary in putting together advisory service transactions (Ibarra 1999). It is usually the case, that investment bankers must have a good grasp of finance and mathematics.

In the Mergers & Acquisitions (M&A) department of our study of a global Investment Bank, we initially analyzed 24 professionals and then turned our focus towards one Director and two particular Analysts. Initially the case, through the work of a particular Director, provides a detailed view into the strong culture (Kunda 2002) of the M&A department. We then focus on one Analyst who struggles with the increasingly ambiguous nature of his work, deciding to leave the Investment Bank. Our second Analyst questions the mentality of the first Analyst whom he describes as too analytical for much of the increasingly client facing demands imposed on them. We conclude that those who struggle in the department usually either drop out or remain, settling for less, client facing roles and usually never rising to the highest ranks of the M&A Department.

The study not only sheds light on this type of work and how some Quant newcomers struggle, but also on the strong culture (Kunda 2002, Schein 1971) that they become part of, within this type of knowledge intensive firm (Maister 1993) which conditions their beliefs, arguments and professional identity (Ibarra 2000, Alvesson 2002).

Chapter 7 - Second Case Study: Quant Identity Struggle. A Personal Experience.
This second case is an exploratory analysis of the first hand experiences of the Researcher, during a very difficult training period of his professional life, which reflects how his own Quant mentality struggled, when confronted with professional situations involving levels of ambiguity he was unaccustomed to. Soon after graduation from Boston University as a mathematician and computer scientist, the Researcher moves to New York City to begin work at a venture capital fund. His new boss however demands that prior to joining he begin a six-month training program,

personally designed by the boss, focused on improving "selling skills" both on the telephone and face to face.

During this exceptional and radical training program, the Researcher at an immense personal effort and emotional cost is faced for the first time, with situations where one's ability to effectively persuade other individuals is critical to doing one's work. His academic training, as well as his initial work in computer programming, had failed to identify and prepare him for the type of rationality he was now being confronted with in these new work settings. As he is forced to develop and practice, "softer skills" in the process of attempting to sell services, he is increasingly exposed to actors with different moral judgments. In order to do his work effectively, he is forced over time to reconcile these within his own professional morality, which is conditioned by his closed mindset, professional identity and culture (Kunda 2002).

It was only his eventual realization that the outcome of this Quant mentality struggle was so important to defining the type of professional he was going to be in the future, that kept him going throughout these six-months and in particular the last two, which were so difficult. The study's aim is to provide unique insights into this particular professional identity development process and the role of Rhetoric and narratives in Quant professional identity development.

Chapter 8 - Third Case Study: Negotiating the meaning of Numbers.A Quant Perspective.

The third case is an exploratory study of a quantitatively trained professional, Roberto, whose obsession with objectivity and quantification (Porter 1995, Toulmin 2001) lead him to struggle inside an organization where numbers seem continuously socially constructed (Czarniawska 1997), culminating in a professional identity change (Ibarra 2000) for the individual. The study presents the experiences of Roberto during the initial stages of his professional career as he makes the transition between a large consulting company to a medium sized software company and what this does to his understanding of the "meaning of numbers". While at the large

consulting firm, his view of the reality that the numbers represented was unquestioned. At his new company, in a very different role as Chief Financial Officer, he confronts a new reality, which is quite different, where as a senior manager, he must continuously negotiate their meaning in different contexts that become critical to his survival in the firm.

His journey is one example of how a professional's knowhow and mindset, having being conditioned by his academic training and initial work experience, are put into question by his exposure to a more qualitative work environment and culture (Schein 1971) where numbers and their meaning are being continuously negotiated. The study presents in detail the professional identity development (Ibarra 2002, Pratt 2000) processes that Roberto undergoes that change his Quant professional identity and mindset.

Chapter 9 - Fourth Case Study: Quant Identity Crisis within the 2008 Economic Turbulence

The final case is based on an in-depth case study of Timothy, and the organizational contexts in which he has worked since University, from an Engineering degree to a career in investment banking. Timothy, who has a keen interest in mathematics and finance, now begins to experience the other side of economics and financial organizations, one which is much more subjective (McCloskey 1998) and socially constructed (Czarniawska 1997). His professional journey is nothing like what he had originally imagined it to be as his identity development goes through various stages that eventually culminate in a crisis of confidence in his work as well as in his professional identity. His journey is one example of how a professional becomes immersed into today's "culture of greed" (Lewis 1999) within the world of financial markets, and the identity struggles this creates for him as he is forced to continuously negotiate meaning and direction in his professional life as part of his Quant culture.

The case provides insights into professional identity development processes and the role of narratives in these, as the professional begins to question everything from his

know-how in this field, the ethics of his work as well as his own Quant professional identity. The Economic Crisis of 2008 itself causes this professional to undergo a professional identity crisis of his own.

Chapter 10 - Findings & Conclusions

The final chapter discusses the Case findings of the study as well as their contribution to extending theory in this area, practical recommendations and the conclusions.

Initially, I discuss the similarities and differences between the cases where each case constitutes a different prototype of very distinct professional identity transformation. This is followed by several theory contributions for identity topics such as career/role transitions, socialization and identity work. Several practical recommendations for Managers are made before finalizing with the conclusions. I also suggest areas for future research that have not been the focus of present studies but could help gain additional insights into the professional identity development of professionals.

CONCEPTUAL FRAMEWORK & LITERATURE REVIEW

Chapter 1 - The Researcher's Journey & Motivation with a Preliminary Literature Review

This academic journey description is particularly long because it serves two important purposes. Its main purpose is to describe in detail my intellectual development and academic journey, which was no small task considering how much I had to travel to reach concepts and ideas with which I felt comfortable. The second objective is to present my personal experiences which led me to begin this academic journey in the first place, and what caused me to settle on this research topic which, is surprisingly so much like my own identity development "story". Essentially this journey description is almost a case study itself, as it constitutes the identity development, over many years, of a relatively closed minded, quantitatively trained individual and his resulting professional identity development.

The description of this experience is itself a narrative, which describes some of the adaptation challenges that I myself felt during the course of my professional career as I moved from being a quantitative student, to a computer programmer and then to an investment banker. Coincidently, as I was trying to better understand productivity issues in investment banking, I came across professionals with a similarly closed, quantitative mentality and decided to focus more closely on them. For many, this mentality is part of their personal cognitive style, for others it is part of the mentality of their profession, which they have adopted. Many others however, feel very much at home with quantitative methods and mathematics but do not exhibit a necessarily closed, mathematically minded mentality (Toulmin 2001).

My desire to try to understand better the identity development of professionals, exhibiting, a fairly closed, quantitative mentality, resulting from their academic training, and how they may adapt or not, into today's organization is the main focus of

my work. It is this focus, in particular, which has as its background my own "story", which I hope will shed light on the conceptual choices I have made.

1.1 Mathematics in my Education

All my life I have loved mathematics. It was not, however until my first semester in University that I realized that this love of mathematics was not only reflected in a particular interest but also in my way of seeing the world around me. It was in 1978, at the University of Adelaide, in South Australia that I first noticed how this affinity with mathematics, was affecting the way I saw myself as a person. My family had moved temporarily from the US to Australia and I had decided to go with them and begin university there. I thought it would be an interesting experience, knowing that I could always transfer back to a university in the US during my Bachelor's degree program.

As a child, I had loved to collect rocks from different places and I felt a tremendous curiosity for rock formations and their historical origins. It was at the University of Adelaide that I took this interest in rocks seriously and started my first semester towards a Bachelors Degree in Geology. It was in one of the classes on rock minerals that I noticed that there was something about the uncertainty associated with the work in this profession, which started to make me uneasy. It was in one class on minerals that I realized for the first time that a rock could be Quartz or Feldspar and that there was little difference that you could notice with the naked eye. This apparent lack of certainty, made me nervous.

In particular, this made me very uncomfortable, because there was no way to study for this. I had always been a keen studier spending hours on subjects in order to do well in class at school. How much I studied was always a good predictor of the grade I would get and that made me feel good, as it was very much up to me. In a way, I felt I could predict my grades, as they were very much a function of how much I studied. For weeks, I was not only feeling strange with most of the subjects I was enrolled in,

but I had also noticed that the students enrolled in these classes were very different to myself. The study of Geology seemed to be also associated with a certain lifestyle, a certain look. It was one less rigid and disciplined than the one I was used to in my studies and at home. I realized then, that I was much more "nerdy" or "mathematical" than my peers. I studied a lot and went out very little. I was obsessed with my studies and this didn't play well with the other Geology students that hung around the University Union drinking beer after class. As an American, I already stood out quite a bit but the lifestyle difference made this difference even more obvious.

Two of the classes I was enrolled in were applied mathematics and Pascal programming. Pascal fascinated me. It was a very structured programming language. I loved it. I would go home in the afternoons and practice Pascal and then spend hours punching cards in the university mainframe computer practicing my programs. After much soul searching, it was in my fifth week that I decided to transfer to a Bachelors Degree in Computer Science. From there, the following year, I transferred to Boston University back in the US. There I felt very much at home taking courses like cryptology and artificial intelligence where I achieved the top grades in my class and received the 1982 Kodak Award for Excellence in Computer Science. I did so well in cryptology that after graduation, I was approached by a particular department of the US government as a possible candidate for intelligence work but I decided against entering that line of work. After finishing my Bachelors degree I started to study part-time for a Masters in Computer Science, majoring in mathematics.

1.2 Professional Life and Persuasion

In 1982, while doing my Masters part-time, I got my first job as a computer programmer at a large computer magazine publisher just outside Boston. At last, I felt at home, I was doing what I liked. I was writing code for "parsers" which would be called by large programs for deciphering text instructions. It was tedious work and provided little contact to other people, working mainly by myself. One day, less than nine months having started on my job, my Russian boss came to me and told me he

wanted to leave the company. He was going to set up a new company and wanted to raise money so he could take our entire team with him. He asked me if with my international contacts and experience I could help him to write a business plan and raise $ 2 million in funds for his new venture.

Again, I saw myself studying books on weekends, but this time on how to write a business plan. It was the business plan that I wrote and the subsequent money I raised for the new company in New York City that year, which launched my career in investment banking. The same venture capital fund that funded the new company offered me a job and after looking around in the market, I settled on a different venture capital (VC) fund run by a university colleague of mine.

My colleague, who was the boss at the venture capital fund that hired me, knew me well as a person and insisted that I was too much of a God-fearing "nerd", or quantitative type, and that I needed to improve my "people" skills. He insisted that my mentality was too much "black" or "white" and disciplined, too mathematical. He told me that venture capital was about working with entrepreneurs and finding good projects and then persuading investors to invest in your fund so you, could then invest in these projects. He stressed that I needed to learn to "sell" on the phone as well as in person, if I was to survive in New York City.

The condition that he placed on me to enter the venture capital fund was that I complete a training program that would last 6 months before starting the job. This approach was common in most investment banks. During these training programs, recruits were introduced to many courses in finance, company valuations as well as other quantitative methods, which were not always taught in university. In Investment banking, Goldman Sachs and JP Morgan had training programs, which were considered "best in class" and highly coveted by new recruits. Doing a good training program, as part of the initiation into a new job was the norm and very much part of the attraction of joining a good firm. There was tremendous competition for these training programs, which were usually very analytical.

To my surprise, my training program, however, was not quantitative at all. As my new boss put it, it was the "Invisible Fish Program". It trained someone to sell plastic bags full of water and convince people that what you were really selling them was invisible fish. Perception, in his words, was "reality".

For the first three months, my program involved working in a large loft in lower Manhattan, alongside about thirty five other young freelance workers, making cold calls around the country trying to sell $850 computer hardware Directories. This involved using every skill you could imagine in trying to target the right potential buyer, get to the right decision maker at the buyer and then convincing that person, on the phone, to buy your $850 Directory. This part of the program lasted 3 months and essentially my new employer was paying this direct marketing company to allow me to work there so that I could train, "on the job", to sell on the phone.

My boss believed that in order to effectively sell any product, there is also an emotional component of getting under the buyers "skin" and influencing his/her buying behavior, which could not be done by phone. To my surprise, after my initial three months, where I managed to do fairly well in telephone selling, my boss took me to a company called, "The American Millionaires Club" on Central Park South, where "relationship analysts" were sent out three times a day, across New York City, to visit "dysfunctional singles" seeking long-lasting relationships. Each sales visit lasted 2- 3 hours where the objective was to persuade the single person to join a $1,500 per year Dating Club. Once you had managed to gain the person's trust, during the first hour of emotional bonding, you then had to persuade them of the value of your product and then close a deal that you knew, you would never close, if you left their home that day without their credit card number. To my surprise, the second part of my training program involved me being a relationship analyst for three months.

This part of the training program almost caused my father to banish me from my family forever. Several times I gave up on it and went home depressed, for what I considered initially to be ethical reasons, but finally I realized, after many heated

discussions during late night dinners, with my new boss, that this job required a skill that I needed to learn. How I was to use this skill in my professional life was up to me but I realized that I lacked the ability to effectively convince and persuade people to buy something.

It was during this two-part, six-month training program, which I describe later in detail, as part of this study, that my professional career took a turn that was fundamental to my way of dealing with the reality around me from then on. I strongly believe that the initial experience in that training program at the venture capital fund has been critical to my subsequent career path of over twenty years in investment banking. While it was not clear to me back then, I had undergone a change in professional identity, which forever changed the way I was to look at the professional world around me. The "Quant" in me had changed, I was much more sensitive to the qualitative side of the business world around me, the ambiguous side of business, and it did not make me uneasy any more.

1.3 Investment Banking

After my second year in venture capital, where I was able to put to the test many of my newly acquired skills from the training program, I was hired by Union Bank of Switzerland in New York and became an investment banker. A couple of years later I was transferred to the head office in Zurich. After three years in Zurich, I was headhunted by another big investment bank, ABN AMRO, and was transferred to Madrid. Several years after my transfer, I was transferred again, this time to Amsterdam, and then finally two years later to London. Throughout this time, I was in mainly client facing roles, which were traditionally reserved for very senior members of the Mergers & Acquisition teams. I was however, very good at people skills now and was the youngest client relationship management member of most of the teams I was part of. Increasingly, I noticed that being able to persuade senior people at client firms was a skill that took most bankers many years to develop. I was on a Fast Track.

It was not however, until the second half of my almost twenty plus years of investment banking, within two large investment banks, that it became increasingly apparent to me that there were challenges with respect to performance at work that seemed to go beyond giving employees, what seemed to be the 'right' incentives. Across investment banking, as well as in knowledge intensive services, like consulting and professional services, there were major performance challenges (Maister1993, Mathias 2005). I also realized that there was, additionally, a whole consulting industry built around the idea that these issues could be effectively managed (Maister 1993). Whether one looked at top tier firms or second tier firms, the law of diminishing returns seemed to always apply when it came to adding resources (Mathias 2005) in investment banking and professional services. If ten professionals are able to produce so much output, adding ten additional individuals rarely enabled one to double output. These performance issues increasingly became an intellectual challenge for me.

1.4 The Interest in Academia: Initial Subjects, Concepts and Methods.

It was almost ten years later, when I decided to spend time looking more closely at this problem. Having reached the age of 42, I decided that my life required a career change so I began to look into the idea of going into Academia and doing research on this "performance" challenge in investment banking. I began to search for good PHD programs and was fortunate to find one that I could take, part-time. I began the PHD program at ESADE Business School and started to commute almost once a week from London to Barcelona. Not long thereafter, I left investment banking at ABN AMRO Bank, moved to Madrid and became a business development consultant, in order to have the time to dedicate myself more to my research and PHD.

As I began to plan my empirical work, I realized, I was fortunate to have kept strong relationships with several investment banks and companies that now allowed me to help them better understand some of these performance issues through my empirical research. I began my initial empirical work among a team of over just over forty

bankers within the Mergers & Acquisitions (M&A) department of one of the large investment banks I knew well.

I realized I had spent six years of undergraduate and graduate studies and had only studied one brief introductory course in Philosophy. I was in particular fascinated with the concept of "Arts of Reasoning" (Bonet 2001) and what this meant philosophically. I was also intrigued by the academic foundations of "Rhetoric" and remembered my days as a "relationship analyst" persuading a three-times divorced single man to join the American Millionaires Club so he could find true love and achieve ever-lasting happiness. I now realized that while I had never paid much attention to the term Rhetoric before, it had been very much part of my work since my training program days.

I realized, I had a lot of catching up to do and was eager to understand better the different schools of thought that would help to provide me with insights, into how to explain, the phenomena that I would soon begin to observe as part of my on-site empirical work.

Using what I considered at the time, as common sense, I decided that I was going to both observe the individuals myself, trying to be as objective as possible, as well as ask them to share with me, individually, their personal views. I felt that by doing both, this would allow me to try to validate one with the other or discover inconsistencies in the interviews. I wanted research methods that would allow me to gain insights into the bankers, "up close". Without any existing philosophical agenda, I settled on two qualitative research methods, ethnography and open-ended interviews.

As I began my empirical research with forty junior and mid level bankers, I discovered many qualitative issues amongst them, including many factors that influenced professional behavior in ways that that most managers seek to ignore, whether out of choice or ignorance. Personally, I had always believed that contextual issues had very little to do with the idea of performance or the sharing of 'knowledge assets' which are

so critical to leveraging newcomers in investment banking. Because of my Computer Science background, much of my career was spent trying to capture knowledge assets into physical databases or structures for later use by bankers who did not have them, or to avoid having them to "re-invent the wheel" in their work. I "bought into" the idea that "best practices" could be captured and re-used across different business environments, independent of the context in which they were applied. I studied the bankers at many different levels and tried to understand better the issues that surfaced as I focused on what they considered to be the main performance challenges. I then observed them to try to reconcile their "talk" with their "walk".

Initially, influenced by my PHD Directors, I settled on a few schools of thought, including Communities of Practice (Lave & Wenger 1991, Brown & Duguid 2000), the role of Rhetoric (McCloskey 1990, Bonet 2003), Phenonomenology (Schutz 1967) and Ethnomethodology (Garfinkel 1967).

1.5 An Interpretative Approach

Little, did I know at the time, that as a life long positivist investment banker, I was now embarking on a interpretative approach (Czarniawska 1997) to research that would change my way of looking at human behaviors forever. My initial interest in these schools of thought began as I saw that there were other, more qualitative, factors, than just "monetary" that seemed to influence the bankers. I was intrigued by Lave & Wenger's "legitimate peripheral participation" which seemed to be evident within the banking world, where bankers played out roles, as they were increasingly legitimized by their peers. After gaining additional insights through fieldwork at my first investment bank site (de l'Etraz 2004), this performance problem emphasis, led me to focus on another problem: how investment bankers learn to do their work (de l'Etraz 2005). I discovered that this work is not clearly defined by manuals or training programs, but is learned in a complex system of adaptation, encompassing several levels of seniority: analyst, assistant director, director and managing director.

Through my ethnographic research, I quickly discovered that there seemed to be a strong culture associated with work in the investment bank (Ibarra 1999; Schein 1978; Alvesson 2002, Kunda 2002). Much of this culture and knowhow was expressed verbally (Orr 1996) and involved "typifications" or taken for granted assumptions (Schutz 1967). The culture was so strong that it seemed to affect how individuals saw themselves as professionals. It seemed to affect their way of thinking and how they saw others. In particular, I began to focus on how their work helped newcomers develop their professional identities (Ibarra 1999, de l'Etraz 2006). It was then that I realized that the process of identity development seemed crucial, in this case, to attaining a level of adaptation within the firm that would produce productive workers. I began to recall my own identity issues back in the Geology courses in Adelaide, as well as after the venture capital training program I had been exposed to. As I didn't know much at the time about schools of thought around the concept of Identity, I temporarily "parked" my interest in identity development and focused now on other schools of thought, which were more prevalent amongst my peers at the university.

With some general ideas from a few schools of thought and empirical experience, and before settling on the conceptual framework for the research project of my dissertation, I started to explore many more additional concepts and theories with the hope that they would help guide my research. It became very clear to me that many of these were concepts and theories that arose from an academic literature very different to my own academic background.

1.6 Knowledge Workers and Ambiguity

I began by attempting to tackle the problem by looking at what the academic literature said about "knowledge workers" and how they did their work. I thought that the prevalent professional approach, of, "if you pay them enough they will work better", was somehow flawed and was eager to gain insights into this problem.

I started my literary review journey by looking at what was meant by knowledge workers and the nature of their knowledge, that differentiated them from other types of work that were described by some as less "knowledge intensive". Recent studies suggested that in order to be more productive at knowledge work, one must understand better not only the factors to being more productive in this type of work, but also much more about how knowledge work is actually accomplished (Davenport & Prusak 1998, Davenport 2005; Davenport, Thomas & Cantrell 2002).

Many Academics seemed to believe that much of the knowledge, in knowledge intensive firms (KIFs), is "socially constructed" (Brown & Duguid 2000, Tsoukas 1996, Monsted 2005, Alvesson 2004) and ambiguous (Alvesson 2004, Monsted 2003). In a KIF, experts provide legitimization (Alvesson, 2004, Monsted 2005) to an ambiguity-intensive field, attempting to solve problems where very little if any of the socially constructed knowledge (Brown & Duguid 2000, Monsted 2005) used, can be mapped back to formal knowledge. This ambiguity surrounding outcomes is central to KIFs and presents a real barrier to measuring individual employee performance outcomes in this type of firms (Swart, Kinnie 2002). KIFs are firms where the emphasis of the work is based on solving problems using knowledge that is particular to the type of work being done (Alvesson, 2004). Within KIFs, knowledge is considered to be the firm's primary asset and more important than other kinds of inputs or resources, with regard to achieving competitive advantage (Starbuck 1992). I was now beginning to see many similarities between this description of KIFs and investment banks.

As I continued along these schools of thought, I felt I was getting closer to explaining what I was seeing in their work, reflected by my empirical research, but still felt that there was something that was fundamentally missing for me to explain how some bankers worked better than other bankers, even though they both seemed to have similar skills and "knowledge".

I kept going, looking into the concept of knowledge in KIFs and performance. It was the ambiguity in the "knowledge" and it's creation that usually created a weak link

between knowledge creation and knowledge intensity (Alvesson, 2004) and posed the greatest challenge to increasing performance. Increasingly I was starting to see that the ability to deal effectively with ambiguity was a positive factor in knowledge work.

Much research also showed that in many KIFs, more input does not always produce more output or more problems solved (Brooks 1975, Starbuck 1992). Brooks (1975) points out that in the software Engineering field, in the problem solving and creativity related to the creation of an operating system, adding more programmers did not accelerate its development. Along those lines, Starbuck (1992) provides an example of a chemical firm R&D department where incremental dollars resulted in fewer and fewer patents over a long period of time. Experts are not always motivated to embrace new ideas (Starbuck 1992) or to solve more problems. Monsted (2003) talks about the legitimacy of the manager being at stake, as economic arguments are not enough to motivate his knowledge workers. She stresses how the management of knowledge workers is a delicate balance between motivation and coordination. For the first time, I noticed the word motivation with respect to knowledge worker performance.

Peter Drucker (2004) recently commented, "Nobody has really looked at productivity in white collar work in a scientific way. But whenever we do look at it, it looks grotesquely unproductive." There is today a multi million dollar industry, driven by high profile professional gurus, dealing with what managers must do to empower their knowledge workers to perform better (Boyett & Boyett 1998).

1.7 Theories of Practice

I now decided to look more closely at individual knowledge to try to get a better understanding of how individuals did their work, their practice. The situated approach (Lave and Wenger 1991; Brown and Duguid 1991; Pentland 1992) to knowledge is oriented towards the interpretation of organizational performance through the observation of everyday practices in the workplace. The roots of this perspective are found in the sociological theories of practice (Bourdieu 1977) and in

philosophical pragmatism (Dewey 1938), which stress that knowledge is embodied in practice. The empirical implications of the situational approach are very important. If knowledge is embodied in practice then it has to be retrieved by following individuals in the everyday work. In addition, it is the situations and not individuals that become the most important level of organizational analysis. The situation provides the point of contact between the individual and the organization (Pentland 1992).

I felt I was getting closer as that was exactly what I found in my empirical work, that certain situations made performance issues more prevalent and that the banker's knowledge was very much made apparent in their practice. Within this practice approach, I also considered Activity theory (Engstrom 1987) that makes the activity or practice the object of study that is situated in the activity's historical context. It offers a pragmatic consistent empirical framework for analyzing work in-situ, thereby bridging the divide between theory and practice. I also looked at the techno-science approach that takes a "constructionist" stance on knowledge-related phenomena and deals with the social construction of reality (Berger and Luckmann 1967). Neither of these seemed very practical or helpful to me so I decided on the situated approach to organizational knowledge because it stresses the linkages between action, context and processes of the individual, with a strong emphasis on context.

1.8 Managers and Dealing with Uncertainty

Several initial studies of management work (Livingston 1971, Radosevich and Ullrich 1971) found that managers that "get to the top" in management have developed skills that are not usually taught in formal management education programs. Mintzberg (1973) stressed that one way to determine what skills managers' need is to analyze the roles they perform. He identified ten basic roles that managers perform which suggested eight basic skills that a manager needed to learn: Peer skills, Leadership skills, Conflict-resolution skills, Information-processing skills, Skills in decision-making under ambiguity, Resource-allocation skills, Entrepreneurial skills and Introspection skills.

Mintzberg (1973) also makes the point that it is not the decision making under certainty, risk, or even uncertainty of the textbook that the manager faces, but decision-making under ambiguity. I felt comfortable focusing on managers as well, as they seemed like KIF workers who had to deal with ambiguity.

Mintzberg (1973) felt at the time that more research was required to search for better means to simulate in the classroom, the reality of decision making under ambiguity, and to teach prescriptions which match the complexity of this reality. In addition, he felt that management schools were serving the functional specialists of the organization who must make relatively routine decisions with structured inputs resulting in students being taught a process-driven approach by technocrats, not managers.

One of the first studies to appreciate the complexity of managerial work was done by Sayles (1964). What was unique about this study was that it was among the first to be done using fairly loose, unstructured ethnographic techniques (Mintzberg 1973). Most of these initial ethnographic studies of managers were fairly structured (Diary studies and structured interval observation) and usually presented perceptions of the manager's job rather than the jobs themselves. Sayles (1964), however, spent extended periods of time actually observing managers at work. He is one of the first researchers to conclude that understanding managerial work complexity would be a challenge difficult to achieve through traditional concepts of work.

In his ethnographic analysis of five chief executives, Mintzberg (1973) summarized his detailed analysis of the variables that influence manager's work and highlighted that if managerial training and development was to attain a reasonable level of efficiency, we would have to learn how to select those candidates who demonstrated the special skills that the job of managing required. Mintzberg (1973) concluded his study stating that, "we cannot rely on indirect methods of research, such as diaries, questionnaires, and interviews. Managerial work is complex; we know too little about it. We need to

first have an appropriate theoretical understanding of the work that will only come through extensive ethnographic observation".

Mintzberg's most recent work (2004) questions his own original work with respect to the development of management skills. He describes management as a practice, part art, part craft and part science. Those who teach management skills must have been managers first. He questions the role of MBA's in preparing individuals to be good managers and feels that many are too young and un-experienced in order to learn good management. He feels that would-be managers need to manage first and then improve their management skills. Barnett (2005) argues that Mintzberg does not discuss the origins of managers. What skills do they need before they practice? What academic training have good managers had before they practice? What differentiates good managers from other individuals? Does their academic training help them to effectively deal later with uncertainty? I now realized I was back to thinking about professional identity.

1.9 Going Back to the Notion of Professional Identity

As my conceptual journey turned to the development and training of managers, I now felt I was getting closer again to schools of thought around professional identity development. Wenger (1998) defines practice as doing, but not just in doing in and in itself. It is doing in historical and social context that gives structure and meaning to what we do. Our "Life Stories" (Bonet, Sauquet 2001) play a part in giving meaning to our practice. They give them a context. Communities of Practice (Lave & Wenger 1991) are places where we develop, negotiate and share our own theories and ways of understanding the world. They determine our systems of beliefs. Knowledge workers contribute to the negotiation of meaning by being a member of a community and bringing to bear the history of participation in practice. In their participation, they recognize each other and are able to develop their identities through relations of participation (Lave & Wenger 1991). These relations of participation are verbally

expressed (Orr 1996) and it is through them that we share knowledge within the Community of Practice, within our organizational culture (Schein 1978).

This identity creation is critical to knowledge workers. It legitimizes the work that each knowledge worker does in their own peripheral way as they try to move from learners to experts (Lave & Wenger 1991, Bou, Sauquet & Bonet 2003). Lave and Wenger (1991) describe an actor who becomes an expert learner and masters the learning situation – but never actually learns the performance skills themselves. Learning requires access to performance. To learn in a community of practice you must perform. Learners however may be kept from performing because they must be, gradually legitimized, by their community of practice. It is only through their legitimized involvement through doing, performing, engaging in practice, that they become experts.

I returned again to what they (Lave and Wenger, 1991) describe as a concept of "legitimate peripheral participation" that defines a learner as someone who increasingly participates in the actual practice of an expert and is in parallel increasingly legitimized by the community as he develops his identity within this community of practice. The concepts of community of practice and legitimate peripheral participation suggest an approach to understanding work and workplaces quite different from the concept of skill requirements.

I concluded that most literature on knowledge intensive work is not concerned with work as practice. It does not focus on what is actually being done in accomplishing a given job. Most literature is focused on work as the relation of employment or on work as a source of the worker's identity. A careful examination of work practice however, gives us a better understanding of both the relation of employment as well as the role of work in the constitution of the worker's identity (Orr 1996, Alvesson 2002).

I realized I needed to understand better how this type of work, entailing a high degree of ambiguity, representative of the banker's work, was actually being done. I would focus on the situated approach to the definition of knowledge (Lave and Wenger 1991; Brown and Duguid 1991; Pentland 1992, Bou, Sauquet & Bonet 2003) that is oriented towards the interpretation of organizational performance through the observation of everyday practices in the workplace (Patriotta 2003). Using a situational approach, in order to retrieve the knowledge, I would follow the actors in their everyday dealings. Additionally, situations and not individuals would be the appropriate level for my organizational analysis (Patriotta 2003, Pentland 1992).

Following Alvesson (1994), Kunda (1992) and Czarniawska (1997) my conceptual framework would be used mainly to "interpret", more than to guide or structure my study. This ethnographic study would position me as an informed observer writing an ethnography, which represents the cultures under observation, as a logical system of rationalities, values, beliefs and actions (Harvey 1997). I would explore knowledge work in-situ in order to develop an understanding of what knowledge work is really like and what it means to accomplish knowledge work.

1.10 Defining the Final Subject of Research

As I continued this "not so random" walk across different schools of thought, in parallel to my empirical work, adopting some approaches along the way, I realized that it had been a very long and rewarding experience. It had not been a short journey. It had taken several years before I settled on my topic and schools of thought but I felt it had been a worthwhile one because I had the opportunity to look at phenomena under different lenses and felt very much at home with my topic now. This was not a logical process of deduction in order to arrive at my conceptual framework but a process of adoption by experience, reflecting on those insights that experience, both personal and empirical, made apparent to me.

As I began to "wear"my lens with which to look at the phenomena I was discovering, I also began to notice that there was one type of worker that began to stand out in my research. My interest in quantitatively minded professionals or what I would refer to as professionals with a fairly closed "quantitative mindset", began after several attempts at trying to gain insights into performance issues in investment banking. It was then, during my fieldwork that I stumbled across individuals that served as ideal examples of this type of closed, mathematically minded rationality (Toulmin 2001) and the issues this mentality faced within a plural organizational setting, when attempting to adapt to it.

These "Quants", as I began to call them, seemed to struggle often within the organization, when their way of seeing the world around them came into contrast with the department's reality of dealing with clients. This "reality" that was many times very precise, in terms of the work, was at the same time very ambiguous. The Quant's mindset often lacked the flexibility required to adapt to changing circumstances. It was a mindset set in its own ways. As I spent time with them I realized this was more than a state of mind. It was a way of seeing the world. It was a way of seeing themselves and their peers. Everything they "saw" was under the lens of a "Quant" and that made all the difference to their ability to adapt and ultimately to perform. Being a Quant was not only a "state of mind", it was a state of being. I realized that individuals became Quants and I felt curiosity about this process of becoming and the role it played in their ability to adapt within the Bank.

I then decided to study individuals with a fairly closed, quantitative mindset and their adaptation challenges in today's organization. Having settled on a topic, I was now more convinced than ever that my conceptual framework would be driven by professional identity development (Ibarra & Barbulescu, 2010, Louis 1985) and the strong organizational culture (Kunda 2002) associated with these Quants. Communication has a central role in constructing and reifying the social patterns of interaction and beliefs that make up the web of culture of the Quants. I would look at culture as a root metaphor (Alvesson 2002), whereby it *is* what an organization is

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rather than something it *has* by paying attention to the specific symbolic and performative actions of its members. In this work, narratives (Czarniawska 1997) and Rhetoric (McCloskey 1990; Bonet 2003) play a big part as their role was reinforced many times by my initial empirical research.

It was by coincidence that this study would coincide with the greatest financial crisis the world had seen since 1929. It was not by coincidence that many of the factors that led to this crisis were the result of the work and behaviors of people with the same narrow, quantitative mindset or mentality that I was now studying. These were individuals that were set in the belief that you could predict human behavior and that markets were rational, always moving back, naturally, towards equilibrium (Fox 2009).

The more I read about what some academics (Taleb 2007, Blyth 2010, Stewart 2009, Soros 2009) were saying about the mentality behind much of the thinking that got us into this economic mess, the more I could see similarities between the mentality I was observing and that of those today in positions of influence, continuing to try to predict human behavior in our economy. In addition, I was fortunate to have had several case studies that started before the crisis and then went, well into the crisis. This provided me with a unique opportunity to observe this mentality up close during a time of personal professional identity crisis for one of the individuals involved.

Chapter 2 - Identity

2.1 Why Bother with Identities?

Why are identities problematic today? Why is there so much focus on them in organizational studies? Why is the concept of identity so important for work in today's organization?

As a Researcher, I have discovered that there are many answers to these questions and that while most academics struggle with a clear definition of identity and its role in organizational work, few question its importance and the need for a greater understanding of its nature (Ibarra 1999, Alvesson 2000). The role of identity in the process of professional socialization is at the heart of much of the organizational research around this topic. The identity approach that stresses that we are constantly changing and renegotiating our identity in our interaction with the social context, reflects my view of quantitative minded professionals. It is about focusing on the process by which these individuals become and act, as quantitative minded professionals.

Alvesson (2000) reminds us that identity today is seen as crucial to understanding how people relate to their working world and how organizations function. One of the characteristics that distinguishes the professions from other occupations is that their members are expected to develop professional identities (Costello, 2005). If you worked in the food service industry, you might not consider yourself an ex-food service worker. But if you practiced law as an attorney, being a lawyer is an important part of your self-concept. In modern society professional specialization and social differentiation (Hytti, 2003) creates the obligation that our identities be subject to constant pressure for change and multiplication. While our professional identities are an important part of defining who we are, they are continuously subjected to negotiation (Alvesson 2000).

In pre-modern times, identities were considered as stable and sometimes even given. Stuart Hall (1999) saw the source of pre-modern identities as tradition that for the most part was not challenged. Individuals did not have to choose between identities or negotiate them with other individuals. They were unproblematic. This is not the case today. For many Individuals working life is less and less rooted to membership in institutions or being "wage earners" whereby they are perceived less as "citizens of the company". The dominant ways of organizing working life are increasingly being de-institutionalized (Metz & Westenholz, 2001). No longer are Identities, being seen by managers as given but increasingly as developing which is causing much attention from HR departments to the process of how these identities are created.

There is however, little doubt that we all believe we have some sort of an identity from the beginning. Polkinghorne (1988), expressed it as, "I know that I am myself because my substance is this particular body that has continued through time". But we also all know that we are more than just bodies. That, is what we have been told so many times, differentiates us humans from other species. Our identities reflect our thinking, our feelings and our will to do or not to do something. They reflect who we are. "I think, therefore I am", as Descartes put it in the seventeenth century. So why is this "thinking" identity so problematic and of such concern to organizational studies?

Let's take a closer look at identity. The analysis of individual identity concerns how a person constructs a particular version of him or her-self. It is the response to the question "Who am I?" But why is it that today in professional life, we seem more challenged to answer this question all the time? Why is there more self-reflection associated with this question as well as serious doubt than in the past? Why is contemporary working life continuously contesting the stability of our professional careers? While until recently it was a critical component of social and professional life, the stability of the one's professional identity is being questioned now more than ever before (Holstein & Gubrium 2000). It is also increasingly seen as "up for grabs" and as an "anything goes" type of entity (Berman 1992, Featherstone 1992, Gergen 1991, Sica 1993).

How an individual responds to this "Who am I", question, in his or her work setting has important consequences, for the priorities and motivations as well as the thinking and acting of the individual (Alvesson 2000). The response also has consequences for the employee's sense of agency. Many organizations spend fortunes on attempting to instill an organizational culture (Schein, 1985; Kunda 2006) into their employees that will reflect its core values and beliefs with the goal of aligning these around the organization's mission and objectives. For Kunda (2006), the foremost problem of management is the conflict of interest that lies at the heart of relations between organizations and their members. He sees purposeful collective action or "directed agency" (Spender 2002), whatever its circumstances, requiring coordination of activities of a diverse and heterogeneous membership. Identity management (Alvesson 2000) or how employee identities are controlled or influenced can become an important part of an organization's socialization efforts.

In order to better grasp what is at play here with identity, there is a need to move beyond a descriptive account of "Who I am", toward an account of "What it means to be who I am" (Corley & Harrison, 2009) and "why it matters that I am who I am". It is the answers to these questions that will show how identities grant meaning, order and adaptability in a complex, interconnected, changing world of work.

In this chapter, I will discuss what constitutes an identity and my interpretation as to both how it is related to work in an organizational context as well as why an understanding of identity construction is an important part of professional adaptation. My aim is not to become immersed in the panoply of academic debates about the true nature of identity, but to use self-identity and the associated ontological and epistemological stances it implies, to contribute in the rest of the study to describing the development and nature of a particular type of professional.

2.2   A Conceptual Map and Evolution of the Concept of Identity

2.2.1 The Essential Self

Philosophical Foundations

The Greek philosophy developed an ontological and a logical concept of identity. The ontological concept of identity was based on the definition that all things are identical to themselves (A=A) and that two things that are not identical have at least a characteristic that distinguishes them. The logical identity states that for each proposition p, the proposition "if p, then p" is always true, or, in the language of modern mathematical logic the proposition p -> p is a tautology. Classical philosophy has considered that the logical identity is a consequence of the ontological identity, or that the two concepts derive from the same basic idea.

The classical ontological concept of identity develops the idea that we think of reality through the identity of things. It is related to the ontological concepts of essence, substance and nature of things. The claims by Heraclitus of Ephesus sustaining that we cannot swim twice in the same river and the claim of Parmenides of Elea sustaining that movement and change are not possible or not rationally understandable, are related to the idea of identity. They emphasize the problems of that concept created by movement and change.

Classical philosophy considered the concept of identity for all kinds of things, including the identity of persons, which also was related to the concepts of essence, substance and nature of people. A person evolves along his life, but his identity remains constant. But the main interest on identity was on the identity of things. Besides Augustine, we have to wait until Descartes and the rationalists for a systematic view on personal identity.

Identity, I have mentioned, has until recently been always considered as something very stable and not problematic. Classical philosophy considered the concept of

identity for many kinds of things, including the identity of persons, which also was related to the concepts of essence, substance and nature of people. A person could evolve along his life, but his identity remained constant. The main interest on identity was on the identity of things. It was not until Augustine, Descartes and the rationalists that we saw a systematic view on personal identity.

In his famous expression, "I think, therefore I am", Descartes established a *logical* place for the self, which virtually pre-occupied Western philosophical commentary for many centuries (Holstein & Gubrium 2000). The Cartesian self he envisioned is a disembodied and asocial identity where every person inhabits his or her own space and cannot be affected by other participant subjects (Hall, S. 1999). For Descartes, the body was not of his interest, as the Cartesian self is equipped with reason, consciousness and capacity to take action. Every person has a core, which remains stable during its existence. In this line of thinking, each person is also capable of knowing their true self, a self that constitutes their identity (Polkinghorne 1988).

Substance dualism is a type of dualism most famously defended by Descartes that states that there are two fundamental kinds of substance: mental and material. According to his philosophy, which is specifically called Cartesian dualism, the mental does not have extension in space, and the material cannot think. Substance dualism is a philosophical position compatible with most theories that claim that immortal souls occupy an independent "realm" of existence distinct from that of the physical world.

In this line of thinking, identity is understood as something linked to an isolated individual. It is the identity that guides how the individual acts. While the identity itself may derive from psychological conditions or be socially constructed, in both derivations it is an exogenous variable in the analysis, i.e. a variable that researchers can take for granted when explaining what happens in, for instance, a work community. (Metz & Westenholz, 2001)

As Emirbayer (1997) writes, the substantialist position takes as its point of departure that different kinds of substance, like things, being and essence, constitute the fundamental unit of enquiry. For substantialists, entities remain fixed and unchanging throughout their interactions, each independent of the existence of the other, much like billiard balls. (Emirbayer 1997)

Some other related theories, where identity is derived from psychological conditions, speak of "personality" rather than identity. Critics of the term personality agree (Davies and Harre, 1991) that its use implies a fixed unified entity that people have. Traditionally, psychologists tend to view identities as fairly fixed and stable, changing in adults, only slowly over time. Many have criticized this view (Slugoski and Ginsburg 1989).

Potter and Wetherell (1987) point out, regarding traditional views of the self: "The Key assumption behind…traditional models…is that the self is an entity and like any other entity or natural physical object, it can be described definitively, once and for all. In other words, it is assumed that the self has one true nature or a set of characteristics waiting to be discovered, and once discovered, a correct description of these characteristics will follow. Theorizing about the self is thus thought to be rather like theorizing about a chemical. Much of the structure of the chemical may be hidden and mysterious; different research groups may for a time offer competing descriptions, but given proper investigative methods, the true veridical description of the chemical will ultimately emerge."

Metz & Westenholz (2001) describe how in the substantialist paradigm, "negotiation" is viewed as a form of interaction among individuals that pursue own interests and values based on a logic of consequentiality. In their view, the idea is that prior to acting, individuals ask themselves the following questions: What are my alternatives? What are my interests and values? What will be the consequences of my alternatives for my values? The individual will then choose the act with the optimal outcome for him or herself. Even under conditions of bounded rationality (Simon 1955), through

negotiations, they will reach the compromise that is considered to have the best or most acceptable consequences in view of the diverse interests and values of the individuals involved (March & Simon, 1958).

They, Metz & Westenholz (2001) , go on to stress that the substantialist approach to negotiation is one of safe guarding interests. If we consider however, a model of man, where man is not necessarily an optimizer, but is problematic, man then has to deal with much more ambiguity and uncertainty. Negotiation for this man is more about helping to create meaning. We can then imagine ongoing processes of meaning creation among participants in particular work communities. These social processes are characterized by a reduction of ambiguity about who the participants are (Weick 1993, Wenger 1998).

But Descarte's man dealt with little of this ambiguity. It placed the self as a separate and logically distinct entity at the center of philosophy. Solomon (1988) stresses that Descarte's conception of the self not only had knowledge of itself, but in that knowledge knew any and all possible selves. Everyone, everywhere, was principally the same. As Taylor (1989) later puts it, Descartes situates the moral sources squarely within the self.

While many now question the idea of a Cartesian self, or a Transcendental self as some refer to it, because it transcends the social experience of individuals, few have dealt with the true ramifications of what an unstable, problematic identity really means and how it affects theories of organizational socialization. In particular, how this identity is influenced by its interaction with others and what this does to the individual's sense of agency within the organization is still an area where much research is yet to be done.

2.2.2 The Early Pragmatists

Philosophical Foundations

Pragmatism is a philosophical movement that includes those who claim that an ideology or proposition is true if it works satisfactorily, that the meaning of a proposition is to be found in the practical consequences of accepting it, and that unpractical ideas are to be rejected. Pragmatism began in the late nineteenth century with Charles Sanders Peirce and his pragmatic maxim. Through the early twentieth-century, it was developed further in the works of William James, John Dewey and George Santayana.

As I implied earlier, in this study, I will take identity as understood by the symbolic school of thought where it is the meanings that are shared by the social actors, which are of the phenomenon of interest to study. Individuals make sense of their professional identity through shared values and meanings. The following sections present a brief review of the main ideas of some of the authors that had a great influence on the emergence of the symbolic school of identity development. While these authors have many interesting theories, I will concentrate only on those that I feel are part of the main roots of the symbolic school of identity.

Holstein & Gubrium (2000) describe well how the early pragmatists, who studied closely the practice of everyday life, were more interested in how selves operate in the world. They were interested in how individuals managed their relations with each other as they reflected upon themselves and upon those with whom they interacted. In particular, I will look at how James (1950), Cooley (1964) and Mead (1934), while not ignoring the self's logical relation to nature and the universe, defined the self as a predominantly social being. They did not espouse an idealized or abstract position from which one contemplated nature, the universe and our place in relation to them.

The politically modest definition of the self by these early pragmatists coincided with an empirically democratic, some say distinctly American, view that selves belong to all

of us and take their shape and import their substance in our every day relations with each other (Holstein & Gubrium, 2000). This distinctly American view of colloquial identity, one that is found in everyday life, greatly influenced these early pragmatists. William James

Metzler, Petras and Reynolds (1975) indicate that a significant advance made by James (1950) was the removal of the concept of the self from the purely metaphysical realm to the view of at least some aspect of it being derived from the interaction processes in the social environment.

James (1950) does away with the soul as a valuable concept for empirical investigation by casting the "I" self (self a subject) as an event in the flow of time, a judging thought in passing, re-collective of previous thoughts and "the only thinker which the facts require." James (1950), puts it this way:

"Whatever I may be thinking of, I am always at the same time more or less aware of myself, of my personal existence. At the same time it is I who am aware; so that the total self of me, being as it were duplex, partly known and partly knower, partly object and partly subject, must have two aspects discriminated in it, of which for shortness we may call one the "ME" and the other one the "I". I call these 'discriminated aspects' and not separate things, because identity of I and ME, even in the very act of their discrimination, is perhaps the most ineradicable dictum of common-sense, and must not be undermined by terminology, here at the outset, whatever we may come to think of its validity at our inquiry's end."

James (1950) insists that the terms we use to refer to aspects of ourselves are purely terms of reference and not separate or distinct experiential objects. For James (1950), it is experience that realizes the self. The self is part of the process of referring to ourselves, to others, and to the world. It doesn't exist separate from communication. He feels a "man has as many social selves as there are individuals who recognize him

and that carry an image of him in their minds". This social self is not fixed, analytically or philosophically or an idealized state of being.

Charles Horton Cooley

Cooley (1964), distances himself even more than James (1950) from the transcendental self, wanting to locate his concern in the realm of everyday life, in the world of common speech where the "self is one that can be apprehended or verified by ordinary observation". He is obsessed with the "empirical self" which is one that shares a reality with psychology. It is one that can be studied closely. He sees the core of the self as our self-feeling not some metaphysical abstract notion.

One of his most famous descriptions of the self is the "looking-glass self" where he positions the self as operating in the imagination, drawing from, reflecting upon and responding to real and imagined others. This self he describes has three components: "the imagination of our appearance to the other person; the imagination of his judgment of that appearance and thirdly, some sort of self-feeling such as pride or mortification." Cooley's self draws from both what it makes of itself, from the point of view of the other and from the resulting self-feeling.

George Herbert Mead

The self becomes less instinctive and more interactive when Mead (1934) takes up the subject. Mead believes that the emphasis should not be on self-feeling but on thinking and self-consciousness. He believes these provide the core and primary structure of the self. He defines self-consciousness as the inner representation of what is otherwise an external conversation of significant gestures. He sees both inner life and social interaction as forms of communication. Thinking is an inner conversation with oneself while social interaction is an external conversation with others. Both are for him, socially symbolic and reflexively interactive. Mead sees the emphasis on self-

feeling of James and Cooley as essentially viscerally essentializing the self, leaving it only secondarily social (Holstein & Gubrium, 2000).

Mead (1934) is the first to make the point that mind and self emerge from language. Language is the mechanism by which mind is socially constituted and through which the self, that is conscious of itself, as an object appears. The traditional, transcendental model pre-supposes antecedently existing minds and selves to get the social process under way. In this model, there is a "biological animal" that takes on a role to become a "minded organism" which under the "agency of language" makes possible the appearance of the self. In this case language pre-supposes society and psychological capacities in individual organisms. It is only in a social process that selves, as distinct from biological organisms, can arise as selves or beings that have become conscious of themselves. Through the language process, the self has taken the attitude of others into itself and the values of others are its own. Mead claims the self cannot arise outside of social experience. It is the language of social experience through communication that builds and creates the self. The individual becomes an object to himself through the agency of language, by taking part in one's own conversation with others. The individual is not a self in the reflexive sense unless he is an object to himself as he responds to himself.

Mead (1934) argued that the self is the capability that humans have to consider themselves as an object. The self appears and develops through social activity and social relationships. The basics mechanism of the self is the ability of people to put themselves in the place of others to act as these other act, and also in order to see themselves as seen by others. Mead describes two stages in the development of the self.

He begins by comparing social actions as part of a game where individuals "play" the game. The "play" for him is represented by the "I" that is what we identify ourselves with. He describes the principle of action and impulse, whereby the "I" gives us a sense of freedom and agency. It is the agentic "I".

Through the "game", the self takes on the attitudes of the generalized "others". It is the "ME". Here the self reaches full development by organizing individual attitudes of others. The self now belongs to a community and takes on the values of the community.The "ME" is that part of the self which is able to maintain itself in the community that is recognized in the community in so far as it recognizes others, the conventional, habitual individual. The "I" is the response of the individual to the attitudes of the community as this appears in his own experience.

For Mead, rationality is about the type of the response that we call out in others that should be called out in ourselves. This response should in turn take its place in determining which further thing we are going to say and do. Through society ("ME"), the "I" becomes rational. It gains mechanisms of reflection, thought and makes object of himself, a moral man.

It is the conversation of the "I" and the "ME" that constitutes the self. There would be not an "I" without a "ME" and there would not be a "ME" without a response in the form of an "I". The "ME" is the group of organized attitudes to which we respond as an "I".

In order to belong to a community, Mead (1934) believes that one must take on the attitudes and beliefs of that community. You obtain the rational social processes ("ME") from the community. The "ME" in this case is a member of a social group who represents the values of the group. That rationality that he identifies with himself involves a continued social interchange. The individual ("I") is constantly reacting to the social attitudes and changing his cooperative process with the very community in which he belongs. We can never predict how the agentic "I" will act. Social control is the expression of the "ME" over and against the expression of the "I".

2.2.3 Symbolic Interactionists and the Socially Situated Self

Herbert Blumer

Symbolic interactionism is the result of the work done by Herbert Blumer (1969), a student of Mead's at the University of Chicago. Blumer began to organize Mead's notions of mind, self and society into a distinct perspective. Over time, this label became the hallmark of a particular set of ideas about human nature and social order and, especially about the relationship of the individual to society (Holstein & Gubrium, 2000).

For Blumer (1969), Individuals are part of a system of symbols that need to deciphered and interpreted and as such the main interest of the symbolic school is in meanings and symbols and in their interpretations as part of an individual's social action.

While the early pragmatists concentrated on formulating the idea of a social self, it was the symbolic interactionists that became obsessed in systematically documenting its empirical manifestations. Blumer (1969) summarized his methodological position with what he called, "the three simple premises". It was these premises that he felt best conveyed not only symbolic interactionism but also the construction of the self.

The first premise is that "human beings act toward things on the basis of the meanings that the things have for them" (Blumer 1969) and that what is referred to by symbolic interactionism as "meanings" is not something abstract or transcendental, but human beings own meanings. It is whatever we as human beings consider meaningful as part of our social interaction. This applies as well to the meanings attached to the self.

The second premise is that "the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows" (Blumer 1969). This mirrors Mead's view that the social self is an integral part of social interaction, not an entity

that stands independent of it. The self is a social structure. What is important here in terms of the methodological implications is that in order to know and document the self, one must observe it in action. We must study the self from within the social contexts it unfolds, not separate from them.

The third premise is that "meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters (Blumer 1969). This premise is what truly differentiates the interpretive process from other highly structured approaches that assume that meanings don't change and that human beings settle on meanings. Blumer (1969) stresses that humans continually engage the interpretive process, including the interpretation of what they mean to themselves.

There are many symbolic interactionists that do not adhere to Blumer's (1969) third premise and believe that a more structured approach to measurement is required when investigating the self. While they consider the self to be social, they feel that one must establish the meanings of the self in order to consider its relationship to social life. In particular, what is known as the Iowa School, through the work of Kuhn and McPartland (1954), stress that without a more structured approach, little empirical research is possible. They believe it is critical to designate clearly what each specific self under consideration is to itself.

"If, as we suppose, human behavior is organized and directed, and if, as we further suppose, the organization and direction are supplied by the individual's attitudes toward himself, it ought to be of crucial significance to social psychology to be able to identify and measure self-attitudes (Kuhn & McPartland, 1954)".

Kuhn and McPartland clearly refer to human behavior as organized and directed, implying causation. It must be directed by something, which are the "attitudes of the individual toward himself". This school of thought is very much in opposition to

Blumer's (1969) approach favoring a more interpretative approach to meaning, "every step of the way", which eschews the logic of causation.

In line with Bruner's three premises, identity development is a constant self-organizing cycle between self-experience ("I") and the explanations and interpretations developing on the basis of "I" constructions ("ME"). Identity always develops in a psychosocial context in the meaning-making processes with regard to other people. Here there are no fixed, externally given meanings, but they are being constructed in a dialogue between ideas and the world (Bruner 1986, Niemi 2001).

Erving Goffman

Throughout this past discussion on identity and the self we have been focused on the social interactions of the self and the role they played in formulating the self. The symbolic interactionists were keen on documenting the condition of the self in social interaction and defined the self in terms of social interaction. Goffman (1959) agrees with the symbolic interactionists but decides to look at the self as well in everyday life, not just in social interaction. He in particular, is concerned with the situated contingencies and rituals of social interaction. He believes that the self is not just social in that it develops from and responds to others in the course of daily living. Goffman describes the setting of interaction as having an "interaction order" where the self has much more at stake. The self is not just a role player or puppet. It presents himself to others. The self is dramaturgic in that it is staged to accomplish particular moral ends.

"I assume that when an individual appears before others he will have many motives for trying to control the impression they receive of the situation. This report is concerned with some of the common techniques that persons employ to sustain such impressions and with some of the contingencies associated with the employment of these techniques. The specific content of any activity presented by the individual participant, or the role it plays in the interdependent activities of the on-going social

system will not be an issue; I shall be concerned only with the participant's dramaturgical problems of presenting the activity before others. The issues dealt with by stagecraft and stage management are sometimes trivial but they are quite general; they seem to occur everywhere in social life, providing a clear-cut dimension of formal sociological analysis." (Goffman 1959)

Goffman goes beyond what the pragmatists had in mind. The self to him is not only social and empirical, but circumstantially realized. It takes shape within, not separate from, the various situations of everyday life. He reveals that each of us has many selves, pertinent to the purposes of daily living and always part of, yet also reflexively separate from, the moral orders we share with others (Holstein & Gubrum, 2000).

As the transcendental self falls from academic grace in the 1960's (Costello 2005), symbolic interactionalism replaces it as the theoretical framework through which identity is most often approached by sociologists. Where before one assumed a unity of intention between individuals and socializing agents, symbolic interactionism posited conflict and where functionalists saw a unitary identity, interactionsists saw multiple identities. Where in the past an individual's social roles were being internalized almost unconsciously into identity, interactionsists conceived the socializee as a conscious agent in the process: "A status, a position, a social place is not a material thing to be processed and then displayed...it is...something that must be enacted and portrayed, something that must be realized" (Goffman 1959). A major differentiator of the symbolic interactionists is their view of identity as a conscious phenomenon over which an individual has agency.

But as Holstein & Gubrium (2000) describe, in the latter half of the twentieth century, the social self becomes fraught with peril. That same agency that can make it so useful, under proper circumstances, when society works with it, can be so disastrous for it, when society turns against the individual. In many of the post modernists works, from the "Organization Man" (Whyte 1956), to the "Lonely Crowd" (Riesman, 1950), we see the self as very much as part of society for better or for worse. Both these authors, in

particular, portray the self as a passive victim of its sociability, a well-intentioned, if bland, reflection of its surroundings. The self is all but lost in the "house of mirrors" (Holstein & Gubrium, 2000) that comprises modern society where its ability to resist being overwhelmed by society comes into question. Can it sustain something on its own? For many, the onslaught of post-modernity turns against the self in a "crisis of confidence" (Gergen 1991) where the possibility of a discernible social self comes into question.

The post-modernists attack the unified self and its identity. From Nietzche, there is an absence of "being" without "doing". The meaning of identity is reduced to a point where the action happens to take place (Williams, 2000). The post-modernists seem to present a negation of identity but at the same time fail to substitute it with another concept (Hall, 1999).

2.2.4   The Introduction to the Narrative Self

The "post modernists" see the modern notion of reality as not different to its representation. This includes for them, the self. While the early pragmatists and the symbolic interactionists viewed the empirical self as socially formed, reformed as well as deformed, it was nevertheless a self that was a concrete element of society, not a mere image of itself. It was for them a constant agent of everyday life.

In response to this "crisis of confidence" in the self, resulting from the post-modern onslaught, Holstein & Gubrium (2000) highlight the role of the ordinary work of constructing and reflexively managing who and what we are.   Borrowing from Wittgenstein (1953), Lyotard (1984) compares the post-modern confusion of meanings and articulations to socially organized "language games". The self, Lyotard explains, is increasingly constructed at the intersections, or institutional "nodal points" of specific communication circuits, whose language games serve to differentiate the modern centered self into the post-modern condition of communicated selves. Echoing pragmatism, Lyotard writes:

"A (modern) self does not amount to much, but no self is an island; each exists in a fabric of relations that is now more complex and mobile than ever before. Young or old, man or woman, rich or poor, a person is always located at the "nodal points" of specific communication circuits, however tiny these may be. Or better: one is always located at a post through which various kinds of messages pass. No one, not even the least privileged among us, is ever entirely powerless over the messages that traverse and position him at a post of sender, addressee, or referent. One's mobility in relation to these language game effects (language games, of course, are what this is all about) is tolerable, at least within certain limits (and the limits are vague); it is even solicited by regulatory mechanisms, and in particular by the self-adjustments the system undertakes in order to improve its performance."

Lyotard is essentially defining the self as a set of sited language games. The rules of these games discursively construct the semblance of a more or less unified subjectivity centered in experience. But where does truth and authenticity come in here? In Lyotard's form of post modernism, the truths of objects like the self are matters of local discursive recognition. Similarly, Wittgenstein (1953) speaks of particular "forms of life" or types of language games. Both emphasize the local character of the real and the genuine.

Borrowing from both, Holstein & Gubrium (2000) stress that the self thus becomes a representational horizon for presence and personal agency. It exists in experience to the degree that it can be accountably communicated within an interpretive community. It is a practical project of everyday life, a subjective achievement, a personal search.

This positive framing of the self restores the confidence in the self's reality but in different terms. It is no longer solely at the mercy of what society wants to do with it, a total function of its interactions with society. Yes, it has agency but it is now as much narratively constituted as actually lived. It has agency to construct its own narratives.

In this approach both the modern and post-modern as well as the affirmative and skeptical, become interpretative resources. They become frameworks that are at our disposal to use in practice, to derive a sense of the varied truths and authenticities that we are. But what does it mean to view the construction of the self this way and how do we prevent language from leading us astray?

To answer these questions we need a better understanding of the role of language in the construction of narratives and how it reflects meanings, human intent and action.

2.3 A Narrative Basis for Identity

The intent of this section is to provide a narrative basis for identity as well as a better understanding of the role of narratives in the development of individual identities within the context of the organization. I will later argue that the socialization and adaptation of newcomers into the organization will require the continuous replacement of old narratives with new narratives that reflect the new "reality" of the individual. Narratives will provide a conceptual bridge between our narrative concept of identity and newcomer adaptation within the organization. In introducing narratives, I will draw primarily on the narrative approaches developed by Barbara Czarniawska, Paul Ricoeur, Jerome Bruner, Alasdair MacIntyre, Donald Polkinghorne, Anthony Kerby and Herminia Ibarra. In particular, I will look at the role of narratives in human action and the creation of the professional self within the organization. In this respect, I will later spend much time on the dynamics of self-narratives and the narrative tools that help shape these. As Czarniawska (1997) points out, the narrative is not the only approach to organizations today, but its attraction lies in its pragmatism rather than in lofty ideological premises.

2.3.1 Meanings, Intention, Human Action and Narratives

Now that we have established a problematic model of man, one that has to deal with ambiguity and who is not a optimizer, we must go back to looking at the role of

language in the construction of narratives for this man? And how it reflects his meanings, human intent and actions? What did Blumer(1969) mean when he spoke about "human beings meanings"? What did Mead (1934) have in mind by the meanings of actions of people?

Max Weber (1897) proposed the method that he termed "verstehen" in order to understand the meanings of actions of people. It consists of a certain kind of empathy between the actor, who is the subject in the research, and the observer, who is the researcher. The observer must be able to put himself in the place of the people he is studying and try to identify himself with their motivations. (Weber 1987, Parkin, 1986, Iglesias, 2008)

The "aktualles verstehen" or direct observational understanding, allows us to understand what is happening when we observe an action. The "erklarendes verstehen" or explanatory understanding, allows us to recognize the subjective motivations and meanings of an action. This understanding takes place when we relate previous knowledge and experiences. This way, the explanatory understanding attempts to interpret the motivations and purpose of the action that we have previously recognized in the direct observational understanding (Iglesias, 2008). According to Weber, only the explanatory understanding requires interpretation. Max Weber was one of the first researchers interested in the subject of interpretation and on how we understand the meanings of actions of people.

As we saw earlier, the symbolic interactionists took well to Weber's approach to meanings in action. Mead (1934), who is credited with the philosophical roots of this school of thought, recognized the importance of observable behavior but also realized that mental processes, which could not be observed, were also important. His attention on the unobservable aspects of behavior, in social interaction, lead to his emphasis of the idea that humans learn symbols and meanings during the process of social interaction. This school of thought has a keen interest in the meanings and symbols of actions and social interaction.

Following on from Weber (1987), Goffman (1959) and some of the work of the early pragmatists, Alfred Schutz (1973), who draws also from Edmund Husserl's (1970) phenomenological philosophy, pointed out that it is impossible to understand human conduct while ignoring its intentions, and it is impossible to understand human intentions while ignoring the settings in which they make sense. Schutz devotes much attention to the meanings that constitute the thought objects. He claims that the objects of our consciousness are very complex mental constructs formed in experience of our life and involve meanings, abstractions, idealizations and formalizations (Iglesias,2008).

"Even the thing perceived in everyday life is more than single sense representation. It is a thought object, a construct of highly complicated nature, involving not only particular forms of time successions in order to constitute it as an object of one single sense…but also a contribution of imagination of hypothetical sense presentations in order to complete it." (Schutz, 1953).

On the subject of observation and interpretation, Weber (1987) claimed that we can, directly observe the immediate purposes of an action and not the final purposes. Schutz (1973) corrected that statement in the sense that also immediate purposes require to be interpreted that means that both "aktualles verstehen" and "erklarendes verstehen" require interpretation. (Iglesias, 2008)

Schutz goes on to suggest that we in effect, "bracket" the life world so that the natural attitudes do not take over. He wants us to set aside the "taken for granted" orientation to the world of essential objects. Bracketing requires us to put ourselves in a constructive frame so that we can view the language of the self being put to work to provide identity with substance and form. We should not take the self for granted as "out there" in other's lives or "in here" in our own. Schutz (1973) wants us to objectify social reality and to confer true objectivity on its social structures.

Another school of thought that is part of the symbolic school is Ethnomethodology, pioneered by Harold Garfinkel (1967) and which combines the "phenomenological sensibility" of Schutz (1973) and Husserl (1970) with a great concern for constitutive social practice. An ethnomethodological examination of the self would seek to document "just how", this self is actually constructed, conducted, managed and sustained in ongoing talk and conversation (Holstein & Gubrium, 2000).

"For ethnomethodology, the objective reality of social actions is any practical achievement of society which happens locally and endogenously, which is naturally organized, reflexively explained, ongoing; where the effort of its actors takes place everywhere, at all times, in a unique, exact and complete way, without interruption or any possibility of avoidance, concealment, lack of attention, postponement, or negotiation, and represents therefore the fundamental phenomenon of sociology" (Garfinkel, 1991).

Ritzer (2002) stresses this school's focus on the organization of everyday life. Life as it is lived everyday not in any particular special circumstances but those, many times considered, boring and uneventful moments of life as we live it.

Paul ten Have (2004) goes on to state that, "ethnomethodology is a special kind of social inquiry, dedicated to explicating the ways in which collectively members create and maintain a sense of order and intelligibility in social life." It avoids language from leading us astray.

Much of this school's work has been of an empirical nature. Garfinkel (1967) used what he called experiments of rupture in order to violate social reality and in this way try to identify the methods that are used by normal people to construct social reality, their main purpose being to illustrate the way in which people organize their everyday lives.

Holstein & Gubrium (2000) believe that Lyotard, Wittgenstein and ethnomethodology

inspire a new story line for the social self, one that highlights the "discursive practice" as the means through which the self is constructed. As they put it, our interest is now "how" members "do" the self. Using Geertz's (1973) description of how members of society work at "spinning the webs of significance in which they themselves are suspended", the real phenomenon of interest is the process of the self being spun. It is the spinning that is of analytic interest, not the finished product.

But how do we describe and interpret human intentions and the resulting actions? It is within the context of describing social life as consisting of actions and events, where in the actions we assume intentionality, that Alasdair MacIntyre (1981) describes social life as a narrative. It is these settings, where the actions occur, that are sometimes organizations and institutions created by humans and with a particular historical and present context, which situate the individual, in order for these actions to be intelligible. "Human beings can be held to account for that of which they are the authors; other beings cannot" (MacIntyre 1990).

Bruner (1996) claims that what differentiates human agents is that their acts are not produced by such physical "forces" as gravity, but by intentional states: desires, beliefs, knowledge, intentions, commitments. Subsequently he describes stories or narratives as pertaining to the world of human agents and their actions rather than that of the world of nature, unless the world of nature is conceived "animistically" as human-like.

It is important to continue analyzing the role of narratives with respect to human action in order to understand how they lead us to various courses of action on a daily basis. How can narratives affect the sense of agency of our model of man?
Ricoeur (1984) argued that the plot of narratives brings together goals, causes and chance within the temporal unity of a whole and complete action. Through narratives we are better able to understand human action and intention. Crites (1989) goes on to state that human life and action is narrative, that we do not experience things that we then put in narrative order, but we instead experience everything narratively, from

the outset and that the formal quality of experience is inherently narrative. Our actions are part of the lives that we live within the narratives we tell ourselves and exchange in interactions with others. It is narratives that lead us to different courses of action everyday. Narratives bring time into being and link human action and events.

Czarniawska (1997) argues that the common way of understanding human action is by placing it in a narrative, that is, in a narrative of an individual story, which in turn must be placed in a narrative of social history or in a history of the narrative. She goes on to state that conversations in particular, and human actions in general, are enacted narratives. It is narratives or conversations that assist us in understanding human action and intention. They help us to not only model our world but also the minds seeking to give it meaning (Bruner 2002). Narratives help us to bring together the complexities of events, intentions and actions into a coherent story.

Ricoeur (1991) claims that narratives lead individuals to actions that derive from the intention or motivation that is based on the narratives of the individual, irrespective of whether these are generated from a culture or appropriated from a culture. Ricoeur (1991) also suggested that meaningful action is to be considered as a text, and vice versa. Meaningful action shares the constitutive features of the text; it becomes objectified by inscription, which frees it from its agent; it has relevance beyond its immediate context; and it can be read like an "open work". In Ricoeur's hermeneutic theory, a "text" is also a model to understand what he calls "meaningful action". With this model, we can interpret events happening around us, as well as discourses and actions, which are taken, by ourselves, and others. He proposed that the "privileged objects of interpretation are texts, events, institutions, and personages."

Polkinghorne (1988) suggests that the plot of narratives we use in everyday life, including organizational situations, avoids a chronological listing of events and transforms isolated events into a schematic whole by highlighting and recognizing the contribution that certain events make to the development and outcome of the story. Individuals look to the plots of narratives to better understand the circumstances regarding the actions of other people within particular contexts. It is this narrative

reasoning or narrative intelligence (Denning 2007) that helps individuals to understand better the meanings of others actions by connecting the whole process of emplotment where random events can be linked to better understand fears motives, beliefs and intentions. It is in our reasoning (Bonet et al 2001) of the narrative that we attribute motives and intentions to the actions of others. Polkinghorne (1988) argues that the emplotment is grounded in a pre-understanding of the world of action and that more than one plot can provide meaning to the same set of events.

Human actions have a narrative quality as we attribute motive and intention to those actions by holding individuals accountable. Accountability is the main bond of human interactions (Czarniawska 1997) and conduct can be treated as an action when it can be accounted for in terms that are acceptable in a given social setting (Harre 1983). These conducts are the result of an individual's intentions within a specific context. We understand these conducts and actions because they have basically a narrative character and while they cannot be predicted, they can be explained through an understanding of the intentions and motives behind them. It is this structure of human life that requires unpredictability but does not imply inexplicability (Czarniawska 1997, MacIntyre 1990).

MacIntyre refers to the circular teleology of the continuous formulation and reformulation of one's life goals as the "narrative quest". It is a quest where we create our goals rather than discover them. It is one where the negotiation of meaning is continuous and the outcome is always uncertain.

As we shall see later in the study, narratives are not only central to all human actions but also to organizations. Everyday workers arrive to their organizations and live within their workplace narratives in order to go about their daily work. The most common narratives in organizations are stories. Stories usually narrate a single event, often with levity and irony (Dandridge 1983) but are often brief, simple and punchy. They tend to combine truth with fiction in such a way that you cannot tell the difference and are often not written down but spread by word of mouth (Georges

1969). Although stories are often considered unique to the organizations in which they are told, research shows that many stories told in organizations are very similar (Martin et al 1983; Wilkins 1984). Stories are important because they tend to play an important part in the way people do their work within the organization often (Orr 1996) and telling a "good story" helps people create meaning (Gergen, 1994) for the workers.

Czarniawska (1997) makes the point that while narratives offer an alternative mode of knowing, their "power" does not depend on their reference to some extra-linguistic reality but on their openness for negotiating meaning. For Bruner (1990), this method of negotiating and renegotiating meanings by the mediation of narrative interpretation is a crowning achievement of human development and experience.

Ricoeur (1984) presents human experiences as being held in the mind as pre-narratives (narratives in the making) or prefiguration. He refers to the emplotment of an experience or the narrative of an experience as a configuration. It is through the narrating of an experience that one is able to refigure or re-author that experience and make greater sense of it.

We will now look into the role of narratives in the construction of an individual's identity through the creation of self-narratives and how individuals derive a sense of identity. Through Narrative Theory one is able to understand both of these issues as well as how various social settings and interactions within the organization, impact them.

2.3.2 Narrative Identity

Polkinghorne claims that identity is the product of, and realized in, narrative accounts of individual's past, present and future. It is the narrative account that is linked to the action. Bruner(1990) goes to stress that the narrative account is not just a product of human thought but much of what is being narrated are the stories of what has

happened, taken place, what actions were taken to lead to a particular situation. He states that the narrative turn in investigating the emerged in the lat 1970s and early 1980s. Polkinhorne (1988) captures this idea very well:

"We achieve our personal identities and self-concept through the use of narrative configuration, and make our existence into a whole by understanding it as an expression of as single unfolding and developing story. We are in the middle of the stories and cannot be sure how they end. We are, constantly having to revise the plot as new events are added to our lives. Self, then, is not a static thing or substance, but a configuring of personal events into a historical unity which includes not only what one has been but also anticipations of what one will be."

The claim that we as humans are inextricably tied to history simply means that we search for meaning and unity of self in some pattern of coherence in our personal or self-narrative. Personal identity is always a pattern or shape which memory retrieves from the history of each individual and projects in the future (Stroup 1981). It is a hermeneutical concept that depends to a considerable extent on the use of memory for the interpretation of the past. Locke (1959) saw identity as constituted and sustained by a set of recalled experiences unique to a person, and the person remains the same as long as this recollection is retained (Hall, 1999). In this sense, memory contributes to the construction of identity but is not a mechanism by which identity is discovered (Hytti, 2003).

The historicity of our personal identity means that we are in the process of becoming, and, consequently, the interpretation of personal history and personal identity is an unending process that can undergo many changes. Bruner (1995) argues that the self is not static but a configuring and reconfiguring of personal events into a historical unity, past, present and what we expect to happen. It is in narratives, that these events and situations are captured, in which there is a strong influence of individual interpretation and attribution of meaning. But this narrative does not only concern the individual as there are many relationships affecting the individual within the social context. We try to tell our stories, in public and to ourselves, in ways so that

they are acceptable to others, so that we can legitimize ourselves in our narratives.

A narrative identity is a storied identity, emploted by an individual. Giddens (1991) stresses the ability of the individual to create a story of one's self, over and above what people do and how they interact with others. We as individuals have the ability to keep a particular narrative going. This is not a trait or behavior, or a reaction to others. Narratives constitute who we are and our identities are dependent upon the coherence and continuity of our own self-narratives (Kirby, 1991; Barbulescu & Ibarra 2008). They are social and discursive constructions and not objective traits contingent on our use of language.

We discriminate between the variety of events, experiences, characters, institutional promises, and social factors that impinge our lives to emplot our "stories" along particular themes that provide consistency to our narratives and are themselves dependent on having "an evaluative framework" which is shaped by a set of fundamental principles and values" (Somers 1994). Our beliefs are usually one particular story we have learned to tell ourselves (Kirby 1991).

Unlike Descarte who situates the moral sources squarely within the self, Taylor (1989) is one of the first symbolic interactionists to introduce the idea of the self, making moral choices or quest for "good" of the self:
"Because we cannot but orient ourselves to the good, and thus determine our place relative to it, and hence determine the direction of our lives, we must inescapably understand our lives in a narrative form, as a 'quest'....I see these conditions as connected facets of the same reality, inescapable structural requirements of human agency."

For Taylor (1989), moral agency requires some kind of reflexive awareness of the standards one is living by. Our lives are an interweaving of narrative and significance or values. Taylor believes that moral values are critical to keeping the narrative stable, to keeping our self-identities stable. Much of our lives are driven by conflict, a tension

in our narratives that depends on our "evaluative framework" to bring it back to stability. Our understanding of our narrative or our self-identity requires that we believe in a form of causality in our lives. The narratives are the meaning of our "agentic" narrative experience (Husserl 1970), which are all part of our own story. It is as a character in our narratives that we achieve an identity (Kirby 1991).

The relationship between our actions and identity, is mediated by our narratives through a two-way relationship: on the one hand, interpreted actions contribute to the identity of an individual or a community, while on the other, the identity refigured through interpretation of different texts informs one's contemplation of action by way of imagination. MacIntyre (1990) argues that the difficulties of the preceding views stem from a false presupposition each shares; that one's identity is some single identifiable element which can be isolated from the many elements of one's character. He claims this is simply false. Rather, your identity (your being the same person over time) depends upon the unity and coherence you can bring to the many elements that constitute your "story" or "self-narrative." He believes that unless you know about my intentions, my beliefs, the setting within which the actions occurs, etc., you can't even call what I'm doing an action(as opposed to some unconscious reflexive movement).

The self, according to MacIntyre (1990), is not a simple, single element. Instead, you are: the subject of a narrative that runs from your birth to your death, which in turn means that you are accountable for the actions which compose this life. By this, MacIntyre (1990) means that you can be asked to give an account of what happened at an earlier point in your life. (If you cannot give an adequate account, we either, doubt that you are who you claim to be, or that the event is part of your history). This in turn requires that you are responsible for making your account intelligible. Your narrative must square with the accounts others may have of a given action of yours, and with the ways in which your narrative intersects with theirs. But this, itself, presupposes that there is some identity that you possess; that the concept of personal identity is itself meaningful. A loss of historical narratives could result in a diminishing of one's sense of identity (Kirby 1991).

In this way, the self is treated as a construction that proceeds from the outside in as well as from the outside out, from culture to mind as well as from mind to culture (Bruner 1990). The human self, says Rorty (1991) is a self-reweaving web of beliefs that are revealed as habits of action. For Czarniawska (1997), identities are performed in conversations by achieving a positioning vis-à-vis other people (Davies and Harre, 1991) and against the background of a plot that is negotiated by those taking part in the conversation. Identities for Czarniawska (1997), are projects to be worked on, for which the narrating of, is an interpretative activity and not a simple mirroring of the past.

The above literature has presented us with a theory which provides us with an understanding that individual identity is constructed from both self-narratives (past and present) and the claimed narratives about individuals that others, who they interact with, grant them. As the narratives change through both life's experiences as well as the re-figuration by the individual, the identity is reconstituted. We will now look at how one's self-narrative becomes constructed within an organizational context and what sort of factors influence the stability of the narrative.

2.4   Professional Identity Construction

Today's professional world is one of disciplines where individuals join the workplace after extensive training around particular subject areas. While there is much literature regarding identity construction of organizational members it is not clear as to whether this research can be transferred to the identity construction of professionals (Van Maanen & Barley, 1984). Are not professionals better defined by what they do rather than by where they work? Pratt (2006) reminds us that much of today's literature on identity construction deals with organizational membership and not with the issues which concern professionals which are more about "what you do" rather than "where you work". Much of this research emphasizes themes such as social identification in the form of a perceived overlap between a person's identity and

that of a discipline, group or organization (Dutton et al., 1991; Elsbach, 2003; Sveningsson & Alvesson, 2003).

Pratt's (2006) analysis of this topic concludes that most research in organizational identification has examined the importance of organizational membership in employee's self-concepts (Ashforth & Mael, 1989; Dutton et al., 1991; Pratt 1998). It is not clear however, whether membership serves a similar role in the self-concepts of professionals (Gouldner 1957; Wallace 1995).

With the increasing importance of professionals in today's workforce (Wallace 1995) and the centrality of identity in how workers make sense of their work (Weick 1995), addressing issues of identity construction is timely (Pratt 2006). Much of the human resource challenges of today's organization concerns employee recruitment and retention. In this respect a better understanding of how employees see themselves and their work within the organization is of great importance (Weick 1995). As organizations today, struggle with issues related to recruitment and employee socialization, identity, is increasingly identified with issues pertaining to meaning, motivation, commitment, loyalty, logics-of-action, decision-making, stability, change and leadership (Sveningsson & Alvesson, 2003).

Much of identity research work however, assumes a stable self and organization where the "becoming" is part of the linking of the employee with the organization (Sveningsson & Alvesson, 2003). This present research work emphasizes the unstable aspect of "becoming" where it is the dynamic aspect of creating a sense of self through struggles that provide temporary answers to questions like "who am I?" and "what do I stand for?" The aim is to study individual, quantitatively minded professionals, not professionals as part of a quantitative groups (Abbot 1988) that they may belong to, even if it is this group or discipline that will most probably have had the most impact on whom they are today.

In dealing with the construction of identity within an organizational context, Pratt (2006) suggests that much of the research focuses on three sets of theories: careers

and role transitions, socialization and identity work. A comprehensive analysis of the research work in these three areas confirms that all three of them add important insights to the concept of identity construction (Pratt 2006) but while most of them, imply an identity construction rationale, few of them spend much time observing the actual process of identity construction (Ibarra 1999) within the organization.

2.4.1 Careers/Role Transitions

Much of this research spends time looking at the progression of an individuals career in different organizational settings where they are exposed to different professional roles which pose challenges to the continuity of their identity (Barbulescu & Ibarra 2008; Louis 1980; Hall, 1968; Schein, 1978). It is these work role transitions themselves that pose the greatest challenges to their identity (Hall, 1976; Louis, 1980; Strauss, 1977). Individuals are not automatically endowed with the corresponding new identity but must earn it by spending time in it and developing a "culturally appropriate self" (Barbulescu & Ibarra 2008; Kunda 1992; Lave & Wenger 1991; Van Maanen,1998).

In many cases, as individuals move into new roles, individuals experiment with provisional selves that serve as trials for possible new professional identities (Ibarra 1999, Lifton 1993). These individuals actively experiment with new roles, identities and behaviors. Barbulescu & Ibarra (2008) argue that self-narratives which are an "account of the relationship among self-relevant events over time" (Gergen, 1994) are "identity expressed in story form" and it is these self-narratives that bridge the discontinuities, or identity gaps, that occur during role transitions between past and future or desired identities, and between identities claimed and granted in social interaction.

The work of Hall (1968, 1971, 1995) is particularly relevant to this school of thought where he studied how individuals move between roles throughout their careers and in the process develop "sub-identities" in order to fit role expectations.

Nicholson (1987) speaks of individuals as constantly in a state of becoming, of moving between and through various roles and their attached identities and relationships. Much of this research has until recently focused on continuity rather than discontinuity (Stephens 1994) with little attention being paid to the nature of the role transitions. Ashforth (2001) has extensive research focusing on the dynamics of role transitions and their impact on role identity development. Part of the challenge of learning or taking on a new role is in unlearning goals, values, beliefs and norms that are antithetical to the new role, attaining and displaying a certain distance or progress away from earlier roles (Hedberg, 1990). While the traditional approach to role entry analysis portrays individuals as relatively passive or reactive recipients of socialization practices (Bauer et al., 1998; Ashforth & Saks, 1996) recent work portrays the individual as much more proactive in his/her socialization (Ashforth 2001). In this school of thought very little research has focused on the emergent phenomenology or experience of role withdrawal (Nicholson, 1987) or what happens to the individual during an "identity gap" (Ibarra, 1999, Barbulescu & Ibarra 2008) where he/she fails to move into a new role.

With the exemption of Barbulescu & Ibarra (2008), this body of work focuses on when identities are likely to change and how, but sheds little light on the process of identity construction itself (Pratt 2006).

2.4.2 Socialization

The relationship between socialization and identity change is often overlooked (Ibarra, 1999). Usually the question of whether individuals change to fit their jobs or change their jobs, to fit themselves, is very prevalent in socialization research (Ashforth & Saks, 1996; Van Maanen & Schein, 1979).

Socialization research in this area examines how groups and organizations attempt to shape an individual's identity. They all focus on techniques that organizations use to breakdown an individual's "sense of self", or that provides meaning to, or shapes

identity, in an organization's image (Pratt 2000). Some research suggests that individuals drop entire identities and embrace new ones (Schein, 1968).

Much of the identity work with respect to socialization is centered on the experiences of newcomers into an organization. Through socialization, newcomers gain a sense of what the organization is all about and whys it is important, as well as their place within it (Ashforth et al., 2007). Schein (1968) describes up-ending experiences as deliberately planned or accidentally created circumstances that dramatically and unequivocally upset or disconfirm some of the major assumptions that the new man holds about himself, his company, or his job. These experiences can "unfreeze" the individual, motivating learning and possibly personal change and identity change (Lewin, 1951). While other theories may espouse a much more gradual identity change, the socialization focus of looking at how organizations influence the identity construction process is important, as in many instances the type of organization can have a dramatic impact on the identity development process, as in the case of a military organization.

While much socialization research reveals that newcomers are far from blank slates on which the organization can simply inscribe itself, it makes few inroads into providing an understanding as to how individuals construct their own identities. Much of the socialization processes, tactics or stages described by different models focus too much on what occurs versus how it occurs.

There are presently several cross-current themes with respect to socialization research (Ashforth et al., 2007) which include organizational context and localized socialization which attempt to gain a better understanding of identity as it develops. Given that socialization is the process by which individuals become part of one particular organization, it is remarkable that to see that very little socialization research has focused on organizational context. In particular, very little research has focused on the contextual factors that facilitate and constrain socialization practices and outcomes (Ashforth & Saks, 1996; Bauer et al., 1998). In this respect the situated

learning perspective (Lave & Wenger, 1991) holds that learning cannot be separated from the social and physical context within which it occurs. But rather than review studies on diverse contextual elements, would it not be better to try to understand how the context of work affects the socialization process and hence the identity construction process? (Ashforth et al., 2007).

There is much research today focusing on the "tribal" aspects of socialization within an organization. Within this context, newcomers are socialized through specific interpersonal and group-based interactions (Anderson et al. 1999) that are grounded in localized contexts. Localized contexts are particularly important with respect to newcomer identity where identity motives speak to a desire for a situated self-definition (who and where am I) (Ashforth et al., 2007). Because of the tribal nature of the newcomer's organizational experiences, they tend to look at their peers for social validation and tend to see themselves through the eyes of valued others (Felson, 1992, Ibarra 1999). Newcomers may mimic desired behaviors, but it may take much longer for them to accept organizational values and deeply internalize occupational and organizational identities (Ibarra,1999; Schein, 1978; Ashforth 2001).

Ashforth (2007) makes the point that an analysis of organizational socialization theory and research finds that it still generally focuses on raw recruits in traditional work arrangements, entering their first full time, white collar jobs, in relatively large organizations. These default assumptions are being increasingly questioned but continue to be implicitly invoked by researchers and academics. The biggest challenge to socialization research will come from understanding how organizations might socialize for instability as well as for stability (Ashforth et al., 2007).

2.4.3 Identity Work

An emerging set of studies, which Pratt (2006) refers to as "Identity Work", examines identity construction processes much more directly. It focuses on how individuals construct their own identities in "social contexts" (Baldwin, 1986; Bruner, 1990;

Gergen, 1991; Dickie, 2003; Ibarra, 1999; Barbulescu & Ibarra 2008; Snow & Anderson 1987; Sveningsson & Alvesson 2003; Van Maanen, 1997). While the traditional identity compared the Self with an existing social blueprint, this approach sees the Self as a project. It sees an individual's identity as more problematic (Pratt 2006) and pays much greater attention to the role of the individual's agency in the construction of his identity as well as the factors that influence his/her agency. Individuals and collectives are seen as initiators and shapers of identity creation, identity work or identity change. Ashforth (2009) states that, "so important is agency or control that it is frequently regarded as a fundamental psychological need for self". "The experience of agency…seems to lie at the very heart of the experience of self." (Gecas 1986)

Drawing on social interactionism (Blumer 1969; Goffman 1959) and reflecting an emphasis on personal agency, the broader concept of identity work "refers to people being engaged in forming repairing, maintaining, strengthening or revising the constructions that are productive of a sense of coherence and distinctiveness". (Sveningsson & Alvesson, 2003)

Much of the research in identity work is based on the role of stories and narratives in the creation of the self (Barbulescu & Ibarra 2008; Kirby, 1991; Bruner, 1990, 1986; Czarniawska, 1997). Kirby (1991) argues that our identity is dependent upon the coherence and continuity of our personal narrative, whereby a loss of historical narratives, possibly results in a diminishing of one's sense of identity. He stresses that self-narration is an interpretive activity and not a simple mirroring of the past. How we interpret the past is not something fixed and final but is something continually refigured and updated in the present. Persons not only have memories and histories, but also take certain attitudes towards them. Narration can be conceived as the telling of a series of temporal events so that a meaningful sequence is portrayed – the story or plot of the narrative (Kirby 1991). It is as a character, in our (and other people's) narratives that we achieve an identity. One's sense of identity at any one time is a function of our present narrative that is constantly changing. Dramatic changes in

one's narrative can result in identity conflicts. Narratives can be destroyed as easily as they are created.

Rhetoric can also play an important part in this type of research (Alvesson 1994; Cheney, 1991; Sveningsson & Alvesson 2003; de l'Etraz 2004). In the telling of these stories or narratives, Rhetoric can play an important role as a medium of justification as well as persuasion.

Some others examine the role of "working and doing" in the creation of the self (Van Maanen 1997; Wrzesniewski & Dutton 2001). Pratt (2006) stresses that, within this school of thought, achieving alignment between identity and work is a critical motivator in identity construction.

While much of Ibarra's (1999) work is centered on work role transitions, her recent emphasis on the role self-narratives (Barbulescu & Ibarra 2008) in dealing with identity gaps or discontinuities during work transitions, places her work also in the area of what Pratt (2006) defines as Identity Work. Ibarra (1999) has also studied how role models, or professional identities that one can "try on" to see if they fit, provide social validation of newly constructed identities (Ashforth, 2001; Felson, 1992). Barbulescu & Ibarra (2008) and several others (Kirby 1991, Czarniawska,1997) argue that individuals rely on self-narratives to overcome the challenges to their sense of self. But what drives the creation of self-narratives? What conditions them? In order to understand better the issues behind these questions we must understand how narratives created "in-situ" and their role in identity development as part of an individual's everyday work.

This focus on how people construct self-narratives leads us again to this notion of *identity work*. Identity work is about the way people position themselves, in discourse, how they attach themselves to certain issues, using and combining texts and materials, to articulate and give meanings to themselves and their actions (Hytti, 2003). This way identity is constructed through a positioning in discourse, as a

performance created and sustained through textual labor. Identity is not pre-given or fixed. It is always emergent and continuously produced and negotiated through talk and theorizing.

Barbulescu & Ibarra (2008) speak of Rhetorical strategies that individuals can use to overcome "identity gaps" in their self-narratives. These involve a re-evaluation of the assumptions or beliefs held about oneself. Our beliefs are usually one particular story we have learned to tell ourselves (Kirby 1991) and as such when that story stops making sense to us we begin to question these beliefs. We then begin to undergo a re-construction of meaning within our narrative. Something has happened to our narrative. It is either not as coherent to us as before or it has lost legitimacy (Lave & Wenger 1991) or there is a renegotiation of meaning between the audience and the storyteller (Bruner 1990). Individuals rely on other's reactions to confirm their self-conceptions (Mead 1934).

Through Rhetoric or persuasive language, we are better able to conceptualize our self-narratives and deal with the challenge to our sense of self, resulting from the gaps between past and present identities claimed and identities granted.

While all three approaches provide additional insights into identity construction, it is the area of identity work that is better suited to our basic assumption of a problematic, non-maximizing model of man. It is this individual, that has to deal with ambiguities and is in constant search for meaning in his professional career, that will enable us to study in detail how his identity development influences his work.

For Mead (1934) the reflexive self is reflexive because it responds to itself. We reflexively manage and control who we are. Unlike Giddens (1995) who sees reflexivity as a "rational project" where the self has a self-monitoring ability, we are interested in Mead's (1934) socialized aspect of personhood where it is impossible to remove the individual from the influence of culture and traditions. Giddens' (1995)

reflexive project of the self, involves individuals always making conscious choices, which are highly rational and calculating. Our model of man is very different.

Identity work, as the narrative approach to identity, differentiates itself very clearly from cognitive approaches to identity. Using a categorization based view of identity (Ashforth & Mael, 1989; Kreiner & Ashforth, 2004) individuals engage in cognitive tactics to maintain positive perceptions of their identities (Turner, 1987; Hogg & Abrams, 1988). They highlight the positive dimensions of identity when threatened. The objective is to reduce the identity gaps by reducing the perception of the gap. In the narrative approach, identities are integrated not by cognitively assimilating them but by juxtaposing them in a coherent and legitimate way. The objective is to bridge the identity gap by proposing corrections across the gap. It is this way that self-narratives moderate their socialization outcomes.

In conclusion, Identity work reflects better an approach to identity to that of construction, not of searching for a stable identity. In line with Alvesson and Karreman(2001) and Hytti (2003), I am not studying which of the attributes stay stable but by what means attributes are stabilized and achieved. I am looking at the socially constructed identities of the Quants as constituted through linguistic acts and practices (Hytti, 2003). This social constructivist perspective assumes that individuals are socially constructed and norm following actors (March & Olson, 1989) which assume character through the relations that they are part of. Identities become established when subjects are recognized in relations to others, but recognition is negotiated among the subjects in a dynamic unfolding process. (Metz & Westenholz, 2001)

It is the narrative, "conversational identity" (Czarniawska, 1997) developed between the interviewee and myself the researcher, helping to "put the pieces together" (Flory 2008), that I feel will shed the most light unto this type of individual's professional identity development and its role in his/her socialization within the organization.

Chapter 3 - Organizational Culture

3.1 Why Bother with Culture?

Why is organizational culture so important? Why has there been so much focus on it for the last thirty years in organizational studies?

According to Alvesson (2002), traditional organizational research, often objectivist and abstract, has proved incapable of providing deep, rich and realistic understandings of organizational culture. In particular, as we begin to study organizations that are less involved in mass production and more so dealing with service, knowledge and information, we are confronted with ideational aspects where the regulation of beliefs and images are important (Alvesson 2002).

It is not that culture is more important today but that within a single organization there are more "organic systems" (Alvesson 2002) held together by culture, making loyalty all that more important to managers (Kunda and Barley, 1988; Weick 1987).

The centrality of the culture concept for our purposes follows from the profound importance of shared meanings for any coordinated action (Alvesson 2002). This system of common symbols and meanings (Geertz 1973) provides the "shared rules governing cognitive and affective aspects of membership in an organization, and the means whereby they are shaped and expressed" (Kunda 1992).

Following Mestrovic (1998) we believe that the meaning of reflexivity, agency and dialogue vary across cultures. Similarly, if reflexivity is a product of a particular culture, then our knowledge is shaped and compromised by the "limits" of that culture (Adams 2003). Reflexivity itself involves embedding the individual in a particular cultural framework. It cannot be placed outside of the specific cultural, historical, spatial, temporal and social context in which it is practiced (Adams 2003).

Our main interest in this study with respect to organization culture, is to understand better these "organic systems" within the organization, made up by professional identities, and how each plays a part in the creation of the other.

3.2 Origins of Organizational Culture

Interest with what could be described as organizational culture began even before the coining of the phrase, with authors like Barnard (1969) and Selznick (1969) who observed that organizational members often organize themselves informally establishing symbols, norms and codes of conduct for how one should act in the organization.

Later in 1979, Andrew Pettigrew was the first to use the term "organizational culture". Like most before him he was interested in understanding better the norms and rituals in organizational contexts. His approach was different in that rather than simply studying organizations as entities, he was interested in studying groups that had organized. Pettigrew also suggested that norms and rituals that made up organizational culture were symbolic and that "symbolic construction serves as a vehicle for group and organizational conception" (Pettigrew 1979). He stressed that organizational cultures were created symbolically through the use of language, rituals, myths and "organizational sagas".

In a similar fashion, Karl Weick proposed that organizations were not static but dynamic and encouraged emphasis on the processes of organizing in order to examine how individuals form a collective structure by activating "repetitive series of interlocked behaviors" (Weick 1979).

By far the most influential author in this decade was Schein (1981, 1983, 1984, 1986, 1992), who was the first one to create a model for analyzing the culture of organizations. Schein was interested in intervening in the culture of these organizations and his conceptual framework, based on the functionalist approach,

sought out the possible relationship between corporate culture and organizational performance (Iglesias 2008). Schein(1992) examines issues of organizing from a cultural perspective in which culture is a symbolic variable, where its meaning is a cognitive construct shared among members of an organization, in order to explain how organizational culture works.

Many scholars and business executives embraced the symbolic nature of culture as it could be used to increase performance in organizations. Some studies from the "strong culture" perspective (Ouchi 1981) emphasized the effects of building a "strong" organizational culture could have on an organization's bottom line. Management scholars began to see how culture, as a positive variable, could be manipulated in order to achieve desired outcomes.

Schein (1992, 1996) was one of the first to tie the idea of a "strong culture" with symbolism. The symbolic nature of culture provides both explanations as to why organizations function the way they do and more importantly how management can improve and change organizational culture. Few of these scholars however, placed any emphasis on the role of language and communication in the creation and reification of organizational culture.

3.3 The Symbolic School of Culture

The symbolic school of culture is an umbrella for an assortment of views on organizations, views that emphasize meanings and the interpretation of these every step of the way.

P.J. Frost (1985) defines organizational culture in terms of "Talking about organizational culture seems to mean talking about the importance for people of symbolism, of rituals, myths, stories and legends, and about the interpretation of events, ideas and experiences that are influenced and shaped by the groups within which they live".

Other scholars like Geertz (1973), Barley (1983), Louis (1985), Czarniawska (1997, 2008) and Alvesson (2002) originating as well from the symbolic school of organizational culture, were not interested so much in the possible relationship between corporate culture and organizational performance. They focused their interest on the meanings and symbols that are created in an organization. These meanings that need to be deciphered and interpreted, are what the symbolic school sees as holding the organization together. These scholars attempted to move the understanding of culture from one in which culture is something an organization *has* to something an organization *is.*

According to the symbolic school, organizations make sense of their corporate cultures through shared values and meanings. Culture is seen as a system of symbols and meanings that need to be continuously deciphered and interpreted.

One of the main proponents of the symbolic school, Geertz (1973), expressed it best, "believing, with Max Weber, that man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law, but an interpretive one in search of meaning".

The symbolic school is influenced by Weber's sociololgy, Husserl's and Schutz's phenomenology and Garfinkel's ethnomethodology as well as the symbolic interactionism of Goffman, Cooley, Blumer and Mead. Their main points of convergence are their interest in meanings, symbols and interpretation. Geertz (1973) expressed this convergence of ideas describing culture as, "the fabric of meaning in terms of which human beings interpret their experience and guide their action" (Iglesias 2008).

It is through interpretation that one is able to decipher meaning from the symbols of the organization. The symbols themselves do more than just stand for or represent something as they also allow those who use them to supply part of the meaning. Even

the meaning of organizational experience is established through interpretation (Schutz 1967). Geertz (1973) goes on to state, "culture is the creation of meaning through which human beings interpret their experiences and guide their actions, while social structure is the form which action takes or the network of social relationships which actually exist".

This study, following on its approach to identity, takes organizational culture as understood by the symbolic school, which is interested in the meanings that are shared by social actors in the organization. In particular, it focuses on the meanings resulting from communicative performances. This perspective not only looks at how each individual's own meanings come to bear on a situation, but more so on how meaning is produced through communication among individuals.

3.4 Symbolic Organizational Culture and Communicative Performances

Drawing on Geertz's (1973) work on culture, Pecanowsky and O'Donnell-Trujillo (1982) argue that meaning is central to culture and that the metaphor of culture is critical to organizational communication. They describe culture not in terms of a symbolic variable but constituted by communication. Culture does not exist by itself or is something that individuals keep in their heads but through communication it is created and recreated through practices of everyday interaction between its members. Following on Berger & Luckmann (1967) and Czarniawska (1997), narratives or communication, constitute what we tacitly accept as realty. As Czarniawska (1997) puts it, "organizations are like conversations or narratives that are continuously being recreated, their identities are performed in conversations."

Scholars from this perspective see organizations as more than just structures or artifacts but like real people doing real things. Communication has a central role in constructing and reifying the social patterns of interaction and beliefs that make up the web of culture. Alvesson (2002) stressed using culture as a root metaphor, whereby it *is* what an organization is rather than something it *has* by paying attention

to the specific symbolic and performative actions of its members. He additionally suggested that culture should be examined at a deeper level, the level where members themselves construct meaning.

For Pecanowsky and O'Donnell-Trujillo, this approach while sharing the same ontological and epistemological commitments of the broader symbolic school perspective, moves a step further in its analysis to highlight performance as a key theoretical and empirical focal point. It borrows from Goffman (1959) and Czarniawska (1997) the notion of "theatricality" or "drama" in organizational life whereby individuals can make choices regarding the "scripts" provided to them by the organization. It puts particular emphasis on the specific moments in which communication acts are performed. When using this metaphor, social interaction becomes the focal point. It is through these performances that individuals create and maintain organizational scripts that direct how one should act as a member of that particular culture. Different situations call for different performances and organizational members look to their performance scripts to tell them whether an existing performance should be used in a given situation or whether a new performance should be scripted. In general performances are improvisational, in that the actions of organizational members are never tightly scripted, as they are always interpreting a particular performance.

Pecanowsky and O'Donnell-Trujillo (1982) identify five cultural performances that have been analyzed in the literature: Ritual, passion, sociality, politics and enculturation. Ritual deals with that part of culture that is constituted through practices in which members regularly engage. Passion is mainly exhibited in the act of storytelling. Sociality refers to formalized codes of acceptable interaction with others. Politics deals with those performances aimed at influencing others. Finally, enculturation refers to those processes by which organizational members acquire the social knowledge and skills necessary to behave as competent members of that culture.

Putman (1996) describes organizations as "coordinated actions" whereby they enact their own rules, structures and environments through social interaction. Czarniawska (1997, 2008) speaks of "action nets" of organizations as the spaces where this social interaction takes place. What many scholars that use organizational performance have in common is that they are able to elucidate specific interactional moments where culture affects the process of organizing.

While an important focus of our approach to culture is based on communicative performances it is not the only one. How culture is communicated in everyday interactions is important to our analysis but it is not the only concern we will have with respect to how professional mindsets are created and adaptation is accomplished. Clearly how culture is created (Martin & Frost 1999) and the role of power (Alvesson 1993; Deetz 1992) are important issues that are not dealt with a communicative performance perspective but rather can be analyzed using interpretive approaches. It is the focus on strong cultures (Kunda 1992) that makes the analysis on how organizational members perform culture so important to our study.

3.5 Organizational Culture's role in Adaptation and Socialization

Louis (1985) speaks of culture as, "a set of understandings or meanings shared by a group of people. The meanings are largely tacit among members, are clearly relevant to the particular group, and are distinctive to the group. Meanings are passed on to a new group members….[culture's content] the totality of socially transmitted behavior patterns, a style of social and artistic expression, a set of common understandings".

Unique cultures however do not always exist within organizations. Sometimes sub-cultures exist which present a direct challenge to the dominant culture. Martin (2002) names three perspectives on organizational culture: integration, differentiation and fragmentation. In the integration view, some aspects of the culture are shared by most members while in the differentiation perspective, some aspects of a culturewill be

interpreted differently by different people. Finally in the fragmentation view, some aspects of the culture will be interpreted ambiguously, creating tensions within the organization. In our research we clearly identify the existence of subcultures as well as the possibility of ambiguous interpretations related to the fragmentation view.

Within the symbolic school of thought on culture, it is difficult to see how culture and the outcomes of culture can be separated. If culture is meanings and socially transmitted behavior patterns, how can it induce attitudes and behaviors and replace structural controls? Organizational culture then becomes cause and effect (Alvesson 2002).

Without culture, socialization is impossible and without socialization and adaptation there would be no one to carry culture (Louis 1985). But what comes first, culture or adaptation and socialization? Does culture facilitate adaptation or is it a pre-requisite for adaptation? Following Czarniawska (1997), if organizations are conversations, then cultures are also conversations and conversations are what individuals perform everyday so we are back to having to understand the nature of the individual.

Do individuals sometimes bring with them a professional culture of their own upon entering the organization? And if so, can this be an additional factor to keep in mind in terms of their organizational adaptation?

In this dissertation, we will adopt a primarily fragmented view of culture, as we will be dealing with strong cultures (Kunda 2002), present within already existing strong organizational cultures. While in some of our case studies, sub-cultures may not exist, in others they will be very apparent and reflect different professional identity developments.

Chapter 4 - The Quantitative Mindset in the Professions

4.1 Why Bother with the Quantitative Mindset?

Chester Bernard (1950) said that in order to elicit the willing and predictable contributions of effort required by a large-scale organization, traditional economic inducements must be supplemented by an effort to change the "states of mind" that govern the willingness to contribute. This includes the "inculcation of motives" which means shaping not only behaviors and activities but also the self-definitions of members as social actors, their world-views, and most crucially, their emotional responses to their condition (Kunda 2006).

But what helps form an individual's condition before they enter the professional world or become immersed in an organizational culture? And how does this influence who they are as professionals?   In particular, what conditioning may have quantitatively minded professionals received before entering the organization and how does this affect their professional identities as well as their adaptation into the organizational culture?

For close to one hundred years, the professional disciplines shared a common confidence in the "scientific method" which embraced for them all the methods of observation, deduction and generalization. Today, while some of that confidence is gone from many disciplines, it helps to understand how this obsession with objectivity began and what it has means to the development of quantitative professional identities and their respective organizational cultures.

This quantitative, often closed-minded, culture is important, as its obsession with prediction has created a culture of probability: when outcomes are uncertain then think probabilistically. Human behavior can then be modeled mathematically. One can avoid ambiguity by thinking in terms of certainty. This is not only an approach to Economics but a way a seeing the world, an attitude at work, a web of beliefs, a

culture. This culture, which affects all of us in one way or another, is present today in many professions as well as in Academia.

4.2 The Disciplines

Organizational membership is usually related to being part of a particular discipline or group of individuals with similar training. If you work in a large construction company there is a good chance that you are an engineer. Engineers themselves are usually part of a group of alumni of Engineering schools where they have been trained for several years in the art of Engineering. Toulmin (2001) describes the replacement of craft activities by disciplines, starting with Maurit's military academy in the sixteenth century, as the beginning of professional specialization. He describes how individuals started to become specialized in certain activities that were important to their type of work. They began to focus exclusively on things they knew best and did best. These "intellectual blinders" (Toulmin 2001) as he describes them were there to enhance the work of those that were ready to wear them. Max Weber (1978) described this over-specialization as the product of an increasingly bureaucratic social practice and organization.

Mastering your discipline can also be an exercise in "bracketing off" which is not bad if it is part of selective attention but not if it means applying "intellectual blinders" to your way of seeing the world. By focusing on disciplines, people wasted less time on things that they did not see as important. It was a new focus of attention that was forced on individuals. Andrew Flew (1975), described the Specialist Fallacy, as the idea that specialists believed that the words, "I am only paid to know about these things" as meaning the same as "I am paid to know only about these things".

Disciplinary specialization, is what has, since these early days, played an important part in determining the way of thinking about what is "important", as well as the actual activities performed, by members of these disciplines. Many times these disciplines contribute to the development of commitment to the occupation as a life

career, to a shared identity, a feeling of community as well as solidarity among those that have gone through similar training (Pratt, 2006). It is these disciplines that have produced and continue to produce many of the professionals in today's organizations.

4.3 The Two Cultures

May 7th, 2009 marked the 50th anniversary of C.P. Snow's, Two Cultures lecture. Throughout the lecture, he described a chasm between literary intellectuals and scientists, a gulf that impoverished both sides and impeded efforts to relieve suffering around the world. Science was not understood or respected by the dominant culture, to the detriment of all, he said. Scientists had ceased to be considered intellectuals and though any educated person was required to know Shakespeare, almost none knew the second law of thermodynamics.

Snow argued that the gulf that exists between science and "intellectuals" is a result of scientists complete disregard for traditional culture and the "intellectuals" refusal to look at what the natural world might teach us about potential problems with that culture. He located the solution to all of these problems in education. He believed that by making education in the West, specifically in Britain, less specialized that the breach could be solved, with scientists learning about culture and intellectuals learning science.

Snow did address a profound truth in his metaphor of the two cultures. He stressed that while the scientists and the intellectuals share a common optimism for their work, they do not any longer have any way of communicating with each other and, more importantly, neither any longer communicates with the rest of society. He claimed that this became so because of an unnecessary but understandable sequence of events.

As Snow notes, as late as say the 1850s, any reasonably well-educated, well-read, inquisitive man could speak knowledgeably about both science and the arts. For Man, until then, it was still possible for one to know nearly everything that was known and

to have been exposed to all the religion, art, history and culture that mattered. But then with the pure science revolution of which Snow spoke, in biology and chemistry, and mainly in physics, suddenly a great deal of specialized training and education was necessary before one could be knowledgeable in each field.

Like priests of some ancient cult, scientists were separated out from the mass of men, elevated above them by their access to secret knowledge. Even more annoying was the fact that even though they had moved beyond what the rest of us could readily understand, they could still listen to Bach or read Shakespeare and discuss it intelligently. The reaction of their peers in the arts, or those who had been their peers, was to make their own fields of expertise as obscure as possible. If Picasso couldn't understand particle physics, he sure as hell wasn't going to paint anything comprehensible, and if Joyce couldn't pick up a scientific journal and read it, then no one was going to be able to read his books either. And so grew the two cultures, for each, one was real, the other manufactured, but both with elaborate and often counterintuitive theories, requiring years of study.

Snow's words touched off decades of debate on the existence of the "Two Cultures". As C. P. Snow argued in his book, *The Two Cultures* (1969), people in science see things very differently than people in the humanities. They tend to see the world through the "scientific" lens, whereas the "humanities types" tend to see things through a critical lens.

Kagan (2009) builds on Snow's work and describes natural scientists as "big game hunters" whose primary motive is to track and kill an animal that is difficult to find. He sees the joy as coming from one's skill and energy to solve a difficult problem, whose answer is minimally ambiguous. It is this attitude toward ambiguity that is often apparent, even in childhood, which Kagan (2009) claims separates the two cultures.

"The hunters shun ambiguity or put more positively, derive maximum satisfaction from solutions that promise certainty. The bird watchers are more tolerant of

ambiguity because their pleasure comes from observing and brooding about a very specific class of phenomena." (Kagan 2009)

One's goal is to explain, predict, and control, while for the humanities "types", it is to create, appreciate and interpret meanings. An important attribute of the scientific community is their obsession with prediction and control rather than with interpretation.

4.4 Trust in Numbers and the Pursuit of Objectivity

According to Toulmin (2001) we will look back at the twentieth century as the "Century of Representation". A century where in most disciplines people considered and reconsidered the role of language in human life and the basis on which our reliance on it rests. If only there was a perfect language that did not have to be interpreted! For many, this perfect language was mathematics and as such, everyone obsessed with objectivity, embraced it.

Porter (1995) feels that the development of quantification in the disciplines is associated with the pursuit of objectivity, understood as impersonal knowledge, "independent of the particular people who make it". For him, this is a weak definition, as it does not imply anything about truth. Mathematics is good to embody objective judgments as it employs highly structured and agreed rules that all but exclude subjective judgment. It comes in handy when the bounds of locality and community, require a need to gain trust and credibility, whether the community in question is professional or not.

According to Toulmin (2001), the demand for scientific objectivity arose at two levels. At the empirical level, in the design of scientific experiments, the task is to keep experimental results as free as possible from bias or distortion; and at the interpretive level, the complimentary task is to undercut a scientist's outside interests, both in investigation itself and in interpreting its results.

Quantification is preeminent among the means by which science has been constructed as a global network rather than merely a collection of local research communities (Porter 1995). This global network of disciplines relies on mathematics as a tool for dealing with distance and distrust among organizational cultures as well as academic scholars. Today many quantitative methods are available to scientists and managers. What is useful about quantification is that it is very flexible so that almost any issue can be formulated in quantitative language permitting reasoning to be more uniform and rigorous.

4.5 The Obsession with Social Prediction

"Why should we think that the aim of social sciences is to predict the future behavior of human beings, in the way that the aim of physical sciences is to try to predict the future behavior of physical objects?" (Toulmin 2001)

During the last centuries, quantification became very popular and prevalent in the social sciences. While it was not until the first part of the seventeenth century, that the idea of social topics subjected to systematic quantitative analysis, by the first half of the twentieth century the "quantitative paradigm" became dominant in most of the social sciences, like economics, psychology, sociology and political sciences. Max Weber (1976) attributed this to he rise of capitalism and the rational spirit in western societies. He describes a move towards a more rational, bureaucratic and calculative life, and the tendency towards quantifying social entities and behaviors in light of these changes in society.

Porter (1995) differs with Weber and suggests this quantification is less a response to mimic the natural sciences but an attempt of weak professional groups to pacify social and political pressure for greater accountability. According to Porter, the surge of quantification in the social sciences was driven mainly by the desire to create an appearance of professionalism and gain legitimacy for social research and public

policies. He writes, "I do not claim that quantification is nothing but a political solution to a political problem. But that is surely one of the things that it is". Like Kuhn (1962), he sees science and other forms of knowledge as made by communities. He makes the point, however that what differentiates professional communities is that they are subject always to outside scrutiny and criticism which creates the pressure to quantify. For Economists this was very much the case.

Porter (1995) questions why it is the weaker sciences, like experimental psychology and psychical research that insist so much on quantifiable results as if it is a way of unifying relatively weak research communities. This obsession, he stresses, with quantifiable results serves as a check on subjective and personal judgment as well as a strategy for responding to criticism by outsiders. It also serves as alternatives to the trust and shared understandings and meaning that should characterize such strong and autonomous communities.

Toulmin (2001) reminds us that it is this rise in professions and disciplines, from the eighteenth century on, which has made a central intellectual concern of the social sciences to be able to "predict". This goal of "social prediction" takes for granted a future whose seemingly ineluctable character it should be our ambition to figure out in advance. Social quantification is about studying people in classes, abstracting away their individuality so that we can make generalizations about their behaviors and predict outcomes.

Blyth (2010) describes well this type of mentality where agents assume they can see the generator of outcomes in the social sciences (Taleb 2007), failing to see the causal mechanism at play since they cannot stand outside them. They only see the outcomes associated with them and hence assume sampling past outcomes is a good guide to the future.

In the social sciences as elsewhere, the problem of achieving objectivity is that of learning to counter our own biases. In their embrace of quantification, the social

sciences and in particular Economics, have done much to stress the unbiased nature of their assumptions and conclusions. They have, in general, persisted to align economics with the natural sciences.

4.6 The Engineering Culture

Van Maanen and Barley (1984) examined how the culture of organizations such as occupations and work groups were transmitted over time and worked to construct member's identities. In particular, in Engineering, culture is important because most engineers orient their identities and careers to their occupation rather than to their organization communities (Whalley & Barley, 1997). For quantitatively minded professionals, like engineers and many economists, paying attention to their culture may be more telling about their practices and values than examining the organizations for which they work.

For Toulmin (2001), professionals who are committed to particular disciplines, technical or economic, too easily assume that economic and technical issues can be abstracted from the situation in which they are put to use, and so can be defined in purely disciplinary terms. He stresses that these professionals will argue that Engineering and Economics are truly scientific and their principles are universal and it is only these types of disciplines that have the intellectual strength needed to handle exact and complex mathematical argumentation.

In Engineering as in other quantitative disciplines, as well as in Economics, there is often a preference for individuality and non-communication. This is very evident in Engineering where many professional Engineering associations are stressing that engineers must learn how to communicate more effectively with one another. Throughout Engineering literature there are messages of the need for more group work and team based learning (Carlson, 2001; Hilburn & Humphrey, 2002; Lovgren & Racer, 2000; Workman, 1995).

Van Maanen and Barley (1984) suggest that an occupational culture such as Engineering might be even stronger organizing force than workplace cultures because occupational communities transmit a shared culture from generation to generation by blurring the distinction between work and leisure activities in a way that workplace culture cannot.

Education

Kiseler, Sproull & Eccles (1985) describe Engineering as much more than just a set of skills: "It is embedded in a social system consisting of shared values and norms, a special vocabulary and humor, status and prestige ordering, and differentiation of members from non-members. It is a culture". This culture of the individual and autonomy is not only present at work but also in their education. They are taught how to work and think as an engineer (Bucciarelli & Kuhn, 1997).

Bucciarelli & Kuhn (1997) describe the typical graduate of MIT as an excellent individual performer but who often considers it is unethical to use results of other people's work. In Universities across the world, evaluation in quantitative disciplines takes the form of individual scores in classes and projects, and in the working world the individual who masters technical skill and can perform specific operations on assignments becomes the most valued in the organization (Davis, 1998).

Florman (1987) sees engineers as seeking to be considered as scientists, "In seeking the essence of the Engineering view it seems appropriate to begin with the scientific view. All professional engineers enter their profession by passing through the portals of science (Florman 1987). In University, the evaluation of engineers as in other quantitative professions is based on whether they provide the "right answer". Unlike in Art or History, where grades can be more subjective, based on the opinion of the professor, in these professions there is only one right answer usually. This type of evaluation, where there is little room for uncertainty, promotes students working by themselves seeking correct answers.

Expertise

Knorr Cetina (1999) discussed the close relationship between scientific knowledge and the ability to claim expertise. Engineers and other quantitative professionals often display an ethos of expertise by pronouncing the science of their work. Frankel (1993) describes engineers explaining why a colleague's ideas do not make sense because they are unsound or unscientific! In more than any other profession, Engineering education positions the engineer as a scientist and as an expert. According to Bucciarelli & Kuhn (1997) Engineering programs at most universities draw on scientific principles and require engineers to take science classes.

This quantitative or scientific expertise, often leads to professionals having problems communicating with other groups. Workman (1995) observes that Engineering departments often have trouble communicating with other departments such as marketing, because the engineers revel in their expertise about technical matters and will not concede to other points of view. Many professionals from the "scientific" professions do not trust marketers because they believe they do not have the necessary expertise to make informed decisions (Workman 1995). There is a general feeling from those that passionately communicate and engage in their work as a science, that those who do not are not experts.

An Attitude

Mcllwee and Robinson (1992) describe how, "competence as an engineer is a function of how well one presents an image of an aggressive, competitive, technically oriented person". Aggressive displays of technical self-confidence and hands on ability are criteria for success in Engineering culture (Kunda 1992). In Engineering culture there is a certain arrogance that the engineer has the power to control technology, and in turn, society (Henderson 1998). Engineers will work inordinate amounts of hours to make sure that they can come up with that right answer (Perlow 2001). The nature of

Engineering culture is competitive and concerned with technical results (Kunda 1992).

Lafasto & Larson (2001) suggest that it is imperative for engineers to be confident. "Clarity drives confidence; confidence drives commitment". It is because engineers are confident in their work that they inspire others to also be confident. Confidence becomes very problematic when it is not backed by clarity so as soon as the engineer leaves his comfort zone, surrounded by technology or mathematics, his confidence may struggle.

Pecanowsky and O'Donnell-Trujillo (1983) argue that one of the clearest ways in which engineers and other "scientific types" engage in political performances is by showing personal strength. By communicating personal strength is one of the ways by which individuals attempt to influence and dominate one another through communicative acts. They argue that for engineers however, this can be done in three different ways. One is by excluding those who are not technically competent. This approach directly opposes feedback. The other approach is to show that things are easier for them then for others. The third is by comparing oneself to other good engineers. The problem arrives when the engineer is out of his quantitative environment and does not feel comfortable with any of these approaches.

Technology Obsession

Whalley and Barley (1997) describe the tension for engineers in having to simultaneously be craft and knowledge workers. When engineers enter the profession they are expected to both design as well as be experts in the theories and scientific phenomena constituting their work. Numerous scholars have identified this dual identity as part of the Engineering culture (Barley 1996; Bucciarelli 1994; Florman 1987; Walley & Barley 1997). This notion of the engineer as a technophile pervades the Engineering culture and is the object of coffee break conversations and a major barrier in their relationship to other "less scientific" professions. Perlow (1999)

describes engineers as preferring to work until late at night so that they don't have to work with others and can concentrate on their work.

Kagan (2009) reminds us that the growing dependence of natural scientists, including engineers, on complex technologies makes it necessary for many to work collaboratively as members of large teams of scientists. This, in itself, helps engrain a culture amongst them, that while many may not be great communicators, it gives them a sense of belonging, as well as a sense of "who does not belong".

The Non-Communicator

Ford, Voyer & Gould-Wilkinson (2000) describe engineers as having in general poor communication skills and to not work well in work groups. For engineers, in terms of communication, "less is usually better", unless it is about technology. In Engineering as in other quantitative professions, it is preferable and valued to have detailed knowledge of, and affection for technologies than social skills for dealing with others. Many engineers have trouble, understanding people and as a result many scholars, having recognized this problem have developed strategies so that engineers can improve their interpersonal skills. Schein (1996) went as far as saying that given the choice, engineers would replace people with computers. For most students of Engineering, the choice is either to be social or good engineers, there is rarely time for both and their profession is very demanding.

Few professional cultures are as coherent as the Engineering culture. Across a variety of literature, scholars consistently identify similar values and practices of the Engineering culture (Leonardi 2001). The Engineering culture is pervasive and persistent. It has become a professional myth in itself.

It is important to discuss the Engineering culture in terms of Quant identity because most engineers, orient their identities and careers to their occupation rather than to their organizational communities (Whalley & Burley, 1997). For many Quants, as in the case of engineers, one is better able to understand their practices and values by

looking at their culture rather than by looking at the companies they work for. As we will witness in some of our cases, often engineers enter the professional and financial services industries as Quants.

4.7   The Economists and Other Quantitative Cultures

Many Economists believe that Economics is truly scientific and that its principles must be universal. As such, a precondition for making it a science is the denial of any moral or ethical considerations in its theories or in the practice of Economics and Management (Ghoshal 2005).

Over the years, one of the greatest tools for building knowledge from ignorance has been the Gaussian distribution or bell curve. As scientists discovered that it regularly popped up in the study of natural phenomena, the temptation by others, including economists, to apply it to human endeavor was irresistible (Fox 2009).

Henri Poincare (1905) who approved of the bell curve in the physical sciences thought that caution needed to be exercised in applying it to human endeavor, "When men are brought together, they no longer decide by chance and independently of each other, but react upon one another. Many causes come into action, that trouble the men and draw them this way and that, but there is one thing they cannot destroy, the habits they have of Panurge's sheep". Poincare was implying that human behavior isn't truly random and that men sometimes act like sheep, following others. McCloskey (1998) makes the additional point that Economics confuses statistical and scientific significance where statistical significance is more Rhetoric than science.

Thomas Kuhn (1962) explained that many fields hadn't quite developed into sciences yet. A true science, by Kuhn's definition, was a field of study in which the practitioners took a number of fundamental assumptions as given and spent their days solving tiny puzzles in ways consistent with those assumptions. While for many disciplines Kuhn's

analysis was disturbing, Economists felt that Kuhn validated Economics as a true science. Soon thereafter they even had a Nobel Prize of their own.

On Wall Street, the new finance sprung from the rib of this newly scientific Economics. For Economics, people were rational. In finance, the financial markets were rational. Increasingly economists from all over the world were convinced that no other proposition in Economics had more empirical evidence supporting it, than the Efficient Market Hypothesis. This hypothesis states that if financial markets were left alone, they would always settle at equilibrium. It was about mathematics.

Rational market finance was not at the heart of a political movement but a scientific one, based on rational market theory formulated at the University of Chicago in the 1960s. It imposed the midcentury fervor for rational, mathematical and statistical decision making on the financial markets as far as the eye could see. Some of Chicago's finance professors and their students even came to believe that the markets were perfect (Fox 2009).

There were exemptions to the Chicago School. Economists in the Austrian tradition, for example avoided equations not just because they were poor mathematicians, but because they thought equations failed to allow for the uncertainty and change inherent in economic life.

Right up until the Financial Crisis of 2008, the mainstream culture of Economics was very much quantitative, like Engineering. Economists saw Rhetoric and persuasive arguments as not part of their vocabulary. There was a sanctity associated with numbers and mathematics when related to business. These were not negotiable. One would have thought that the Financial Crisis of 2008 might have changed much of that mindset. For many it has, but many more continue having a particular mentality that unless it has come under significant "tension" during this period, it will be difficult to change.

Difficult mathematical models and complex statistical analyses are just some of the means of erecting communication barriers in Economics and management sciences (McCloskey 1990). Many of these professionals use their mathematical aptitude to enter into different types of financial and professional service professions. It is in these professions where much of the knowledge is socially constructed (Alvesson 2002), and one is often providing a fairly "intangible" service to clients that one finds that many of these professionals rely on their "technical rationality" (Legge 2002) to persuade managers of their systematic knowledge. This is particularly the case in management consulting, IT consulting, accounting, insurance and several other consulting practices.

These types of professional and financial service organizations find that the more value-added type services they can provide, like advisory services and other consulting services, the more they can charge for this fairly intangible work. Consultants in this type of work usually define themselves through the knowledge they have created (Alvesson & Maxine & Swan 2001). These professions are perfect for Quants who may want to continue to "practice their mentality" and make more money than in the traditional technical professions.

4.8 Normative Control, Rhetoric and Performance in the Quantitative Culture

As Goffman (1961) points out, members are never passive objects of control; they are free to react: if conceptions are imposed, they are also systematically dealt with. They are active participants in the shaping of themselves and of others. They may, at various times, accept, deny, react, reshape, rethink, acquiesce, rebel, conform and define and redefine the demands and their responses. They create themselves within the constraints imposed on them (Kunda 1992).

Kunda (1992) defines a ritual as "a rule-governed activity of a symbolic character which draws the attention of participants to objects of thought and feeling which they hold to be of special significance." In particular, for professions with "strong cultures",

like Engineering, rituals play an important part of everyday life. The meaning of each ritual is context-dependent and as such it is always an interpretive empirical question.

For Engineers rituals around their obsession with technology and expertise are part of their work. Van Maanen & Kunda (1989) describe rituals as mechanisms through which certain organizational members influence how other members are to think and feel, what they want, what they fear, what they should regard as proper and possible, and ultimately, perhaps who they are. In this respect rituals can be seen as mechanisms for normative control (Kunda 1992).

For many organizations, effective organizational culture is based on the blurring of boundaries between the self and the organization. The intent is to "incorporate" the self through strong identification. This is especially successful with respect to engineers and quantitatively minded professionals when the organization plays to their strengths and obsessions. The removal of a clear demarcation between self and organization is presented as the basis for effective organizational action.

"Like many of us in Engineering, Dave came up the hard way, through the ranks. He knows what it takes to make good products and what it takes to get them out the door. He is one of us" (interview in Engineering Culture, Kunda 1992).

The idea of normative control is founded on the hope of offering members of an organization, a stable self, grounded in a morally sound organizational community (Kunda 1992). It is with this in mind that many organizations made up of quantitative professionals seek to create strong corporate cultures that will encourage targeted collective action, by playing to the strengths, beliefs and obsessions of their workers.

With this in mind, often managers focus on presentation rituals, whereby the performance of the ritual is a framing device: members, acting as agents of the corporate interest, attempt to establish a shared definition of the situation within which reality claims derived from the organizational ideology are experienced as valid

(Kunda 1992). To this end participants are presented with Rhetoric on these occasions that serve as vehicles for the exertion of what Pierre Bourdieu (1977) refers to as symbolic power, the power to define reality.

Existing literature on consultancy work often suggests that corporate image and reputation are fundamental to consultancy work (Clark 1995, Finchman 1999). Some consultancies strive to construct and reinforce an elite identity for their employees by focusing on the intangible nature and importance of the knowledge they create for their clients. Alvesson (2000) stresses the pivotal role that elite identity constructions perform in normatively regulating behavior in professional and financial service firms.

Toulmin (2001) describes the analysis of theoretical arguments in terms of abstract concepts, and the insistence on explanations in terms of universal laws, with formal, general, timeless, context free and value neutral arguments as restricted to Logic. On the other hand, any study of factual narratives about particular objects or situations, in the form of substantive, timely, local, situation-dependent, and ethically loaded argumentation as being, at its best, Rhetoric. Essentially, for Toulmin (2001) and McCloskey (1998), unless it is part of Logic, it has, or even probably is Rhetoric.

Rhetoric was re-established by Aristotle as the art of persuasion by words, from which he developed the main concepts. The notion of Rhetoric within a group of engineers or quantitatively minded professionals, includes the arguments and means of persuasion accepted by their profession. This notion is closely related to the formation and evolution of their identities as part of this organizational culture and its members, and the ways they that create meaning. Nowadays, Rhetoric is a basic instrument in epistemology of science and in the study of the formation and evolution of identities (McCloskey 1990, Bonet 2001).

The use of language in presenting arguments is central to the creation, delivery of the manager's rituals. It is central to their practice.A basic principle of Rhetoric (Aristotle),

is that when you present arguments for sustaining theories or positions, you take into account the beliefs and interests of the people you are trying to persuade. Within this group of engineers this is not very difficult. The members share common beliefs and values and their particular use of language is part of their identities within their profession.

At the theoretical level, Rhetorical means of persuasion are classified into three kinds: Logos, Ethos and Pathos.

Logos is persuasion by the arguments about the subject that is discussed. In a profession, the arguments play to the beliefs and values of the profession. Logos is what helps institutionalize practice within a discipline. The stories that are told regarding how practice evolves rely on Logos for their acceptance and transmission.

Ethos is persuasion by the character and credibility that the speaker manifests in his words. Ethos is very important within a discipline because it the experts that legitimize the junior members of the profession.

Finally, Pathos is persuasion by the feelings that the words rise in the audience. The sharing of values and beliefs within a discipline make its members very susceptible to the use of language around certain topics. As identities within the profession develop so do their feelings about certain topics. By addressing these topics one can expect very predictable feelings on the part of the members of the profession.

As we embark upon this study of quantitative professionals looking at how they become quantitative in the first place, and then how this way of being becomes institutionalized culturally within the organization, we will see the clear role of Rhetoric in the success or not of their organizational adaptation. How a culture is performed enables us to see how interaction amongst its members really works. This is particularly evident in the Engineering, management consulting and investment banking cultures.

Pecanowsky & Trujillo (1983) stress that observing how cultures are performed by their team members one can begin to understand how cultures operate. Our objective is to examine the Quant performances in order to better understand their identity development in these cultural environments as they strive to keep their individual narratives going (Giddens 1991). Following Mead (1934), we do not see culture as a variable but constituted by communication. It is not that a person's own meaning comes to bear on social situations but rather how meaning is produced through communication amongst individuals (Leonardi 2001).

EMPIRICAL RESEARCH

Chapter 5 - Epistemology, Research Questions and Methodology

5.1 Introduction

In this chapter, I discuss the study's epistemology, the research questions and the research methods chosen.

The first part makes the case for an interpretative approach to methodology following Schutz (1953), supported in turn by the interpretative sociology of Weber (1897) and phenomenology of Husserl (1970). I then discuss the research questions that guide our analysis, which is then followed by a description of the particularly important role of the researcher in the research, and the research methods chosen. These methods combine in-depth open interviews, Ethnography and Auto-ethnography. The data, presented using the Case Method, is then analyzed and interpreted using Narrative Methods with the role of the researcher being an important part in both selecting the samples as well as interpreting the data.

5.2 Epistemology & Justification for an Interpretative Approach

Our intent is to study professional identity development without considering questions of their causes, objective reality or appearances but to understand how Quants construct meaning through their actions. Our view of reality is one of inter-subjectively constructed meanings. It is a phenomenological view of the world (Schutz 1953) where we seek to discover the world as it is experienced by the individuals themselves and the meanings that they attach to those experiences. We hope that by understanding the meanings, which they attribute to the activities they engage in, we will be able to better understand their behavior.

Our focus will be on the profound importance of shared meanings of any coordinated

action (Alvesson 2002). It is this system of common symbols and meanings (Geertz 1973) that provides the "shared rules governing cognitive and affective aspects of membership in an organization, and the means whereby they are shaped and expressed" (Kunda 1992, Schein 1968) which will be the focus of our work. Our ability to obtain insights into these systems of shared symbols and meanings would be significantly reduced if we were to rely on traditional quantitative methodologies. For Quants, as part of their "strong culture", their web of beliefs (Alvesson 1997) and shared meanings are particularly important, so much so, that sometimes they identify themselves more by what they are not than by what they are.

The use of qualitative methodologies in scientific research has been conceptually justified by a wide range of authors (Czarniawska 1997, Bruner 1986, Riessman 1993, Polkinghorne 1988) who practice interpretative approaches inspired to a large extent, by Alfred Schutz (1953). To understand Schutz(1953) one must discuss Weber (1897) and his approach to actions and meanings as he was one of the first researchers interested in the subject of interpretation and on how we understand the meanings of actions of people.

According to Weber (1897), the "aktualles verstehen" or direct observational understanding, allows us to understand what is happening when we observe an action. The "erklarendes verstehen" (Weber 1897) or explanatory understanding, allows us to recognize the subjective motivations and meanings of an action. This understanding takes place when we relate previous knowledge and experiences. This way, the explanatory understanding attempts to interpret the motivations and purpose of the action that we have previously recognized in the direct observational understanding (Iglesias, 2008).

For Weber (1897), only the explanatory understanding requires interpretation. He proposed the method that he termed "verstehen" in order to understand the meanings of actions of people. It consists of a certain kind of empathy between the actor, who is the subject in the research, and the observer, who is the researcher. The observer

must be able to put himself in the place of the people he is studying and try to identify himself with their motivations. (Weber 1897, Parkin, 1986, Iglesias, 2008)

In outlining his notion of the 'double hermeneutic', Giddens (1987) explains that, "the concepts of the social sciences are not produced about an independently constituted subject-matter, which continues regardless of what these concepts are. The 'findings' of the social sciences very often enter constitutively into the world they describe" (Giddens 1987). In other words, the actions of the individuals are based on the researcher's interpretation of reality and he now must interpret those actions themselves.

For Schutz (1953), the social sciences have the necessity, and at the same time the right to interfere in the field of meanings, the values and intentions of the actors, as a system to understand and interpret their actions (Iglesias 2009). Schutz (1953) stresses that any human action has three components: the act, which is the observable part of the action, the intention to do the same and the mental plan, which indicates to the individual how to fulfill the act. This way through observation we have direct access to the act and as scientists, we must interpret the intention and the mental project. . This interpretation should be carried out by means of qualitative methods in order for it to be rich and to enable understanding of the intentions and their meanings.

"The social sciences have to deal with human conduct and it common-sense interpretation in the social reality, involving the analysis of the whole system of projects and motives, of relevance's and constructs. Such an analysis refers by necessity to the subjective point of view, namely, to the interpretation of the action and its settings in terms of the actor" (Schutz, 1953).

Following the Symbolic School, I look at organizations as making sense of their corporate cultures through shared values and meanings. Culture is seen as a system of symbols and meanings that need to be continuously deciphered and interpreted.

Geertz (1973) goes on to state, that, "culture is the creation of meaning through which human beings interpret their experiences and guide their actions, while social structure is the form which action takes or the network of social relationships which actually exist."

In studying shared meanings, it becomes difficult if not impossible to extract these using traditional quantitative methodologies. Hollis (1994) makes the point that it is through exploratory methods seeking an exploratory understanding, that the "researcher is able to reach a more comprehensive understanding, rather than the traditional positivist methodologies." Following Czarniawska (1997), interpretative studies represent an approach in the social sciences that comes closest to narrating knowledge, while positivism provides us with an example of paradigmatic knowledge.

The qualitative-quantitative debate (Bonet et al., 2006) about the role of interpretativist methods in social science research has as its main issue the controversy about which methods can be used to develop rigorous scientific research. The traditional position commonly known as positivism sustains that only the methods of natural sciences are allowed in scientific research and that interpretativist methods are based on the subjectivity of the authors and, in consequence, have to be avoided in scientific research (Iglesias 2009).

Schutz (1953) feels that without interpretation of meanings, purposes or motivations of the actors it is not possible to understand their behavior. Consequently this type of knowledge is not accessible by using quantitative methods. We believe that interpretative methods provide a deeper understanding of human behavior than those that use statistical studies, based on scales that attempt to measure subjective properties.

5.3 Research Questions

Although several authors have studied professional identity development, few have focused on how professionals actually build and revise their identities during work conditions (Ibarra 1999, Pratt 2000, Bartell & Dutton 2001). In particular, I have not found any cases of studies that have focused on how professionals exhibiting a fairly closed, quantitative mindset, struggle under particular work conditions, and manage, or not, to keep a coherent sense of self-identity over space and time. This research is interested in better understanding the concept of identity development with respect to these types of quantitatively trained professionals and its role in their organizational adaptation.

Given our view that there does not exist a similar study and the ethnographic nature of similar studies into high tech, mathematically minded cultures, like Kunda's (2006) study of Engineers, this study adopts an exploratory focus. Several other authors have focused on the world of information technology and the identity development (Alvesson 2002) of these individuals in professional service companies but no empirical studies have been found that study the predominantly closed minded, quantitative mindset as a phenomena, in a plural organization today.

This focus attempts to better understand the processes related to this type of professional identity development as well as the subsequent organizational adaptation challenges. In order to understand and interpret how these individuals create and modify their professional identities, the meanings associated to their actions will be an important part of the analysis.

This research is interested in better understanding the concept of identity development with respect to these types of quantitatively trained professionals and its role in their organizational performance. The practices and strategies by which employees build and revise their identities in the workplace is at the heart of a growing stream of research (Barbulescu & Ibarra, 2008; Bartel & Dutton, 2001; Ibarra,

1999; Kreiner Hollensbe & Sheep, 2006; Pratt, 2000; Pratt, Rockmann & Kaufmann, 2006). As I have stated earlier, while I have found no examples in the literature that deal with the identity development of quantitatively trained professionals and how this conditions their organizational performance, there is much research today (Ibarra 2010) about professional identity development and identity work (Pratt 2000).

Much of today's research into identity development highlights the importance of Rhetorical strategies such as language, narratives and stories for identity work which make up the practices individuals engage in order to sustain a coherent sense of self (Barbulescu & Ibarra, 2008; Kreiner et al, 2006; Snow & Anderson, 1987; Sveningsson & Alvesson, 2003). I will in particular analyze how Quants struggle with these Rhetorical strategies when they conflict with their own narratives and sense of "quantitative" self. Of particular interest will be to look at the types of arguments being used to create this sense of professional self and how it affects their work.

In particular, this thesis explores the intersections between this "closed quantitative mentality" or "quantitative culture" and group interaction by examining the ways in which this mindset plays out in communicative work performances.

In several cases, my empirical work will analyze the identity development of several quantitatively trained professionals as they are exposed to the more qualitative Rhetorical tools of *logos*, *pathos* and *ethos*(McCloskey 1995, Bonet 2001) that others in their Quant culture deploy in order to succeed professionally. An understanding of how the quantitative culture is performed might enable us to see how the interaction between qualitative and quantitatively minded professionals at work can be improved in order to improve "sense of agency" and overall performance of the organization.

The main research question of the thesis is: "What is the relationship between the development of a 'Quant's' identity and his/her organizational performance?" In answering that question I will be exploring several other sub-questions. In particular, I will be focusing on organizational narratives and their role in organizational identity

development. I will argue that a narrative identity approach is critical for understanding identity development within the organization. I will take a narrative lens to identity construction in comparison to the usual social categorization perspective. I will focus on explaining how employees respond to performance demands through their sense of professional quantitative identity and in particular how their performance may be impaired by a loss of their sense of professional identity or identity gaps (Ibarra 2003).

My main research question is:

How does the identity development of quantitatively trained professionals, that exhibit a fairly closed mentality, affect their organizational adaptation and performance?

In an exploratory study like this one it is very difficult to decide on a fixed research question so while the above research question will drive the analysis, there are several related sub-questions that will be refined later in the findings. The intent is to make sure that these questions connect the literary review with the findings.

I will look in detail at the conflict of mentalities for Quants. How to cope, as well as possible, with this conflict of 'mentalities' as well as an exposure to a lack of clearness and non-ambiguity (Jensen 2007) is one of the Quants' greatest challenges as they engage the organization through their particular way of seeing the world. Along these lines, I will look at the capacity of Quants to change or adapt their mentality through identity work and the nature of the tensions this can create for them, reflected in their identity transformations. The role of culture in Quant identity development and how it works in helping to maintain a Quant sense of identity, reinforcing the Quant mentality will also be an area of focus.

This leads me to the first sub-question, which is, how difficult is it for Quants to change their mentality?

Another area of interest involves the level of training that Quants receive both in their Academic institutions, as well as in the corporate world when they arrive as part of the workforce, that helps them to deal with the more qualitative nature of work in organizations.

This leads me to my second and final sub-question. Do organizations identify Quants as Quants and do managers facilitate their adaptation into the organization?

The research questions are not part of a hypothesis but questions intended to guide an open-ended, exploratory study that seeks to develop or extend theory.

5.4 The Role of the Researcher

From the outset I was concerned regarding my role as a researcher in this dissertation. I was so close to the work that was being observed. I had worked myself in consulting and investment banking for a combined total of 26 years. I had also been a Quant, as defined in this study, for most of my formative years as well as during my Bachelors and Masters studies.

How was I to give an objective interpretation of what I would witness? I very much understood my own role in creating the material and not just discovering it. I now realize that, no matter how hard you try, it is impossible to "stand outside" of research, looking in, in a truly objective manner. As qualitative researchers we must acknowledge our own participation in the construction of social reality. It is as if we are Quilters, bringing together different materials bringing out the beauty and functionality of the materials once stitched together (Flory 2008). The stories I was about to tell were my interpretations, not precise renderings of the realities of the individuals I had observed. Along the was I was not only interpreting meanings of others but constructing my own meanings and presenting those in my cases, in my narratives.

"The construction of the narrator in the narrative act mediates the relationship between seeing and saying, and in this way the relationship between the researcher and the scientific work is constructed from the positions of both seeing and saying" (Hatch 1996).

I realized also that I was, as a researcher, becoming obsessed with the objectivity of my research. Was this not the sort of mentality I was studying in the first place? One obsessed with objectivity, large sample sizes as a better reflection of reality, prediction and troubled with ambiguity?

It was my dissertation director that insisted that my experience was very important for this study. It was a great asset to have if my work was to be relevant, so much so that he convinced me to use one of my own particular experiences as a case study in the dissertation, which is an example of Autoethnography.

5.5   The Research Methods: Ethnography & AutoEthnography

Fieldwork in this study combines in-depth interviews, ethnography and autoethnography. In the in-depth interviews, the interviewees are encouraged to tell stories about their past and present work in order to reflect well the meanings and beliefs at play by the participants in the organization. The interpretation of these interviews is carried out using narrative methods.

In most of the cases, I have the privilege of being able to spend extended periods of time near the individuals under observation and as such am able to conduct an ethnographic study of them during, in particular times when they are exposed to periods of tension within their work environments. Ethnography involves the fathering of narratives in the field. Where I am able to interact with and observe the professionals within their own work environments over a period of time, in many cases several months.

The data I collected was used to construct narratives or a "thick descriptions" of the events and situations I observed. The concept of "thick description" is particularly relevant to the research methods in this study. Geertz (1973) argues, "Ryle's discussion of "thick description" appears in two recent essays of his... Consider, he says, two boys rapidly contracting the eyelids of their right eyes. In one, this is an involuntary twitch; in the other, a conspiratorial signal to a friend." (Geertz, 1973)

From observation, the two movements may appear identical, however, the winker is deliberately trying to relay a particular message according to some socially established code while the twitcher is simply contracting his eyelids. Telling the difference between the twitch and the wink requires an understanding of the established social codes. The collection of data by the ethnographer facilitates a "thick description" of events within the case study narrative and helps the reader to understand what is a twitch and what is a wink.

Geertz (1973) argues "If ethnography is thick description and ethnographers those who are doing the describing, then the determining question for any given example of it, whether a field journal squib or a Malinowski sized monograph, is whether it sorts winks from twitches and real winks from mimicked ones."

During many months I gathered field notes, shared their culture and came to know the individuals more intimately, which ultimately made it possible for me to develop "thick descriptions" (narratives) of the situations, which I was able to turn into cases. As an ethnographer, my objective was not to simply relay information but to understand why individuals behave as they do in particular contexts. In this respect, my role as the researcher gave me privileged access to their situations and well as to their trust, in order to better understand the particular meanings they attached to their actions.

As an example of the method of Autoethnography, during one case, it is the researcher, which re-enacts his own story by which I hope the reader finds meaning and is able to gain from my experiences. While my intent is not to reveal absolute truths, aspiring to any standard of objectivity, it is to reveal the truths of my experience (Devault 1989) which I believe shed light on the subject of Quant struggle with ambiguity and environments requiring greater command of soft skills.

5.6 The Case Method and Narrative Analysis

Eisenhardt (1988) argues, that while many believe that attempting to build theory from a limited number of cases is susceptible to researchers preconceptions, it can provide very rich insights through the "constant Juxtaposition of conflicting realities" that "unfreeze thinking". He stresses that this process has the potential to generate theory with less researcher bias than theory built from incremental studies or armchair, anxiomatic deduction (Orlikowski 1993).

This orientation "gives primacy to realism of context and theoretical and conceptual development as research goals. It provides an opportunity to examine continuous processes in context in order to draw out the significance of various levels of analysis and thereby reveal the multiple sources of loops of causation and connectivity to crucial to identifying and explaining patterns in the process of change" (Pettigrew, 1990). Unlike the Aristotelian approach, where one exception brings the "whole edifice tumbling down", I follow what Bacon described as the "ladder of intellect", where one proceeds up the ladder of generalizations, going to ever broader deductions.

Case studies are particularly appropriate when the empirical research "investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin 1981, Yin 2003). While often applications of the Case Method are associated with quantitative research, in our cases we are analyzing the meanings of the narratives that makeup

the cases themselves. This study took place with actual individuals or groups of practitioners in their real professional environments and the cases reflect those situations and periods under observation or resulting from the interviews.

The focus of this study is on to provide new insights into our research questions using predominantly narrative studies. Ethnographic studies, on one hand, focus only on the events, not the stories people tell about the events. Narrative studies, on the other hand, focus on how the people themselves interpret events and it is then for the researchers to interpret these interpretations (Riessman 1993). Narratives rely on sequentiality and the temporal ordering of events suggesting some causality. In this sense, a narrative is always an answer to the question, "and then what happened?" In our study we are interested in both the themes the Quants include in their stories and the ways the Quants construct meaning in time, what led to what?

Bruner (1986) and Czarniawska (1999) contrast narrative knowing with the traditional logico-scientific form of knowing. Narrative knowing is about the idea that the world is socially constructed by means of language. We use language to construct narratives from our ideas and things we do or happen to us. Czarniawska (1999) claims that the narrative mode of knowing consists of organizing one's own experience with the help of a scheme that assumes the intentionality and intelligibility of human action.

Narratives are the fundamental scheme for linking individual human actions and events into interrelated aspects of an understandable composite (Polkinghorne 1988). Narratives have plots, someone telling the story and a reader, where the discourse is linked to particular situation. I assume here that they are thematical and sequential as my interest is in what themes the Quants develop in their stories and how they construct meaning in time. As Quants tell their experiences, they are also creating a sense of self. They tell us how they want to be known by the audience (Riessman, 1993).

Riessman (1993) defines narratives as talk organized around consequential events. It is a talk told to particular people. In telling about an experience, an individual is also creating a self, a self-narrative – how she or he wants to be known by the audience. Hayden White (1987) describes three types of narratives used as sources: annals, chronicles and stories. Annals express events while chronicles express several events related to each other and stories not only have related events but also have a plot and a narrative ending. He stresses that modern stories are often emplotted with the help of classical Rhetorical tropes, four common ones are: Romance, Tragedy, Comedy and Satire. The use of tropes in describing experiences can be very common in the types of situations I will seek to observe, those that create tension and conflict.

The important point of Hayden White (1987) is that the stories, incorporating a plot and a narrative ending, are the mediums with which the actors give meaning to the events and activities. For this reason, my interviews are not analyzed using Grounded Theory, as it would destroy the idea of a plot and a narrative ending.

So what is the Narrative Method of analysis? It is a realist analysis in as much as that the answers of the respondents are understood to reflect reality. Triangulation is particularly relevant here as we try to validate respondent's answers with other answers. In the narrative analysis, the interviews are analyzed by understanding the participant's answers as cultural stories (Silverman 2000). In my case, it is mainly Quant stories.

In essence, the challenge of coping with narrative methods can be labeled as a way of living with ambiguity (Cary 1999). I cannot normalize the stories being told or ignore contradictions. Neither our ways of talking are not neutral. The aim of narrative studies is to see how respondents impose order on the flow of experiences to make sense of events and actions in their lives. Why was their story told that way? Here the structures need to be preserved and are the core of the analysis.

In addition, the notion of time is crucial in structuring our experience. In this study I look at the individual stories of the Quants as they are, aiming to analyze not only the contents but also the way they are told. I take a social constructionist view on narratives (Czarniawska 1999) where the world is seens to be constituent of individual and socially constructed realities, and narratives are subjective accounts reified as objective knowledge and acts of sense-making (Boje et al 2002).

I follow the approach by Jokinen-Juhila (1999) and Janesick (2000), which focuses on four types of questions for the research material:

1) What is being said (the contents; what kind of meanings the participants give to a Quant identity)?
2) How it is being said (the format; what kind of strategies, tools and structures are being applied in conveying the meaning)?
3) What are the points of tension: what does not fit, what are the conflicting points?
4) What is the role of the participant – researcher interaction in the meaning making process?

In the analysis I posed these different questions to my research material and then wrote new texts of the transcribed interview texts serving as a way of analyzing the interview text. I analyze the self-narratives from the point-of-view that these are the stories the Quants wanted to tell me and it is up to me to discover why it is these stories that are told in stead of others in this situation and in the particular way they are told.

As Carr's (1986) says, "to understand an action is to know not what caused it but rather what justified it either in general or in the eyes of the agent". The self-narratives given must be seen as only one link in a long chain of identity negotiations in the respondent's life. Life story narratives are not just ways of telling one's life to others but they are means of consolidation, strengthening certain parts of our identity and ignoring others (Jarvinen 2000). Often the lives and identities of individuals are

not cohesive and coherent. This is quite normal as lives can be fragmented and as we struggle with our existence, we will explore multiple identities (Ibarra 1999).

Humans strive for coherence by telling and retelling the story of who they are and what we will be (Carr 1986). Kelemen and Lightfoot (2000) speak of identity as a narrative construction that is a product of the self's reflexive process. From a double hermeneutics perspective, to understand the individual's story involves understanding why he told the particular story and why he uses it as he does. It is only then that we will be able to attempt to interpret the story and give a narrative ending to my interviews.

My objective is to analyze all this material (stories of Quants) to develop a new story. I seek to find something that reflects authentically the thoughts and thinking of the individual. My main interest is to focus on how stories create meanings for these Quants and how these meanings then influence their professional identity development, which in turn will affect their adaptation and sense of agency within the organization.

One important difference between traditional "narrative methodology" and our approach here is that in our case "self-identity" is updated and revised continuously, rendering a single narrative account as static. The study deployed a longitudinal design to access the process of how narratives were revised continuously over time.

5.7 Sampling, Data Collection, Data Analysis and Validity

My selection of cases has been done, using the method of conceptual sampling, on the basis of choosing them so as to have enough similarities between them, to be able to compare them and also differences so that I can explore and analyze them in order to introduce diverse prototypes.

The sample was obtained using the Researcher's own contacts where it was possible to combine good contacts to management of the organizations where the sample individuals were present, as well as the possibility for the Researcher to do extended ethnographic research onsite. In most cases, the names of the individuals and the organizations are fictitious in order to protect their identity. The objective was not to study many cases but to study few, each during and extended period of time with the objective of validating interview transcripts with ethnographic observation. Often times, professionals don't "walk the talk", that is, they say one thing but act differently.

The objective in this study was to see the Quant mentality at work, both in terms of their narratives expressed in open-ended interviews as well as through observing the work they did within their work environments. This sample choice was designed to illuminate rather than to generalize as their many years of experience provided extensive exposure to the sort of identity development under study. The four professionals and their academic as well as parts of their professional experience, is summarized in table 2.1 below.

Study Participants: Table 2.1

Name	Age	Academic Training	First Employment	Employments during Study
Dimitri	37	Economist	Banking	Banking
Researcher	51	Mathematician, Computer Scientist	Computer Programmer	Venture Capital
Roberto	33	Industrial Engineer	Consultant	Chief Financial Officer
Timothy	45	Mechanical Engineer	Consultant	Investment Banker, Fund Manager

Apart from the transcribing of my observation, my main form of collecting data involved gathering narratives through in-depth open interview or narrative interviewing. The interviewees are invited to provide narratives as answers to questions instead of short answers. In narrative interviewing, the plot and main concepts are chosen by the person being interviewed, rather than the researcher.

In all cases the interview settings were not artificial but the actual working environment of each professional. Each professional knew I was a Doctoral student and that I was focusing on adaptation challenges of professionals. It was in the last two case studies, Robert and Timothy that my interviews were not only open-ended but I also tended to steer the professional towards topics related to Quant behavior that seemed to be creating tensions in his work.

In the analysis I mainly focused on what was being said, how it was said and what tensions were created. I then wrote new texts of the transcribed interview texts. I looked carefully at my own interventions in the interviews and the kind of responses they generated from the professional. Part of me was listening to their narratives, while the other part of me was recollecting what my ethnographic observation had witnessed and trying to reconcile the two, as I put together a narrative of my own reflecting the tensions and adaptation challenges I was witnessing. Observation in combination with verbal accounts (Alvesson & Robertson 2006) can be very helpful in theorizing identity and analyzing phenomena.

Each case is interpreted individually, and sometimes differently, as some of them have been presented in conferences and/or printed in publications. These interpretations have been left intact and are summarized in the final conclusions.

Areas of Questioning: Table 2.2

Theme	Topics Covered
Entry Points to existing Job	Education, background, reasons for changing jobs, routes of entry
Nature of work	Work experience, client relationships, team work, expertise, ambiguity
Job Transitions	Promotions, job changes, redundancy, training program, more pay, more client facing, less quantitative
Tensions, resolutions	Ambiguity, selling, sanctity of numbers, Identity change, Rhetoric, exit employment, redundancy, hiring

Following Bruner (1986) I am not aiming for truth but the meaning-making systems of the participants of the study. During one of my empirical studies, the investment banking, boss of the individual under study, enquired as to the nature of my thesis. After describing it to him, he asked me "Do you really think your approach is scientific? Your stories will be anecdotal evidence at best...Will they matter to anyone?"

I realized then that I should have probably focused my study on this individual...but I responded, "Anecdotal because I am only studying a few cases? You think that if I can get several thousand cases it would make a difference? Would it matter to anyone then? Will it change your mind?" He then looked at me "saying no" but without actually saying it, and turned away to go back to his work.

But how does one deal with the question of whether it is the method that is driving the research project and not the research question when dealing with a research methodology that is not searching for truth and therefore is incapable of distinguishing between fact and fiction? One can argue, as Bruner (1986) does, that the narrative is able to deliver intelligible explanations out of un-expected events as well as compelling explanations of people's lives in unscientific terms. This has very little to do the Scientific Method. Much of what I am here trying to do with this study is

to obtain insights into how people, who manifest this obsession with a "Scientific Method" approach to professional life, struggle within the organization today.

Respondent validation was made possible by showing the transcripts of the interviews and ethnographic study, as well as the final analysis of the material, to each of the professionals studied in each case. In all cases the professionals provided their tacit approval of the material as well as its interpretation.

Chapter 6 – First Case Study: Issues of Quant Adaptation in Investment Banking

6.1 Introduction

6.1.1 Aims of the Study

Investment Banks serve as intermediaries between clients and a range of other parties (Ibarra 1999) providing many primarily advisory services for mergers, acquisitions, divestitures, or security issues. As such newcomers enter investment banks initially developing financial models and performing other routine tasks necessary in putting together transactions. It is usually the case that investment bankers overall must have a good grasp of finance and mathematics.

This case study resulted from a follow up of a research project (de l'Etraz 2002) on knowledge intensive firms (KIFs), which focused on the following problem: more input in human resources does not always produce more output. The original research project studied an important kind of KIF: investment banks and more specifically the mergers and acquisitions (M&A) division, in which the Researcher has a long and intense professional experience.

While the original focus of the project was on gaining insights into the productivity challenge in investment banking, the findings led the Researcher to look more closely at how some forms of identity development within the M&A department were themselves possible productivity issues. How identity is constructed within the investment-banking culture (Ibarra 1999) through types of "performance", referring to emotional and aesthetic displays, interaction rituals and roles which perpetuate a strong culture, (Kunda 2002, Cook 2008, Goffman 1959) as well as the role of Rhetoric (McCloskey 1998) in these, focusing on quantitatively trained professionals, became the main area of analysis. As the focus shifted to the analysis of Quants, we no longer focused on productivity issues per se.

The study also identifies ways in which identity is established and sustained under contemporary conditions within investment banking of volatility, uncertainty and the pursuit of monetary gain (Cook 2008). In particular, it provides insights into how some Quant employees, struggled to "keep a narrative going" (Cook 2008, Giddens 1991) as they tried to "move up the ranks" of the department. Several of the newcomers experience what Ibarra (1999) refers to as choosing between "provisional selves" as they look towards internal role models for direction in choosing between possible selves (Markus and Nurius 1986), while most attempt to maintain to keep their own "narrative" alive.

6.1.2 Condition for the Interviews

The Researcher who has spent over ten years at this investment bank and having recently resigned from the bank was presently working on his PHD. Including this bank, he had spent over 20 years of his career working in the Mergers & Acquisitions department of two global banks. In particular, at this second bank, several senior managers had agreed to analyze more closely what seemed to be an acute productivity problem amongst the teams and had welcomed the Researcher's offer to come back into the bank to study the problem. Many of the team members, junior and senior had worked with the Researcher until a couple of years ago and felt very comfortable in being part of this ethnographic study.

6.1.3 The Structure of the Study

The study is organized in three parts. The first part is a description of the investment banking group and in particular, the mergers and acquisitions department. The third part reports on previous empirical findings during which the focus was on productivity issues but resulted in identifying both identity development as well as Quant identity development, as areas of interest. The fourth part introduces two ethnographic field studies. Our first ethnographic field study is "The Acquisition

Opportunity Process" which displays the values, identities, processes, and Rhetorical aspects of the work environment. The second ethnographic study is on "An Exit Interview", contrasted with an interview with a co-worker, which displays problems of Quant identity development.

6.2 The Story

6.2.1 Rhetoric within the Investment Banking Culture

The case study introduces the notion of Rhetoric within the investment banking culture, that includes the arguments and means of persuasion accepted in this culture. This notion is closely related to the formation and evolution of the identities of the group and its members, and the ways they that create meaning. Nowadays, Rhetoric is a basic instrument in epistemology of science and in the study of the formation and evolution of identities (McCloskey 1990, Bonet 2001, Alvesson 2002).

The use of language in presenting arguments is central to the creation, delivery and sale, of the know-how in the Mergers & Acquisitions department. It is central to their practice.A basic principle of Rhetoric (Aristotle), is that when you present arguments for sustaining theories or positions, you take into account the beliefs and interests of the people you are trying to persuade. Within this group this is not very difficult. The members share common beliefs and values and their particular use of language is part of their identities within the group.

At the theoretical level, Rhetorical means of persuasion are classified into three kinds: Logos, Ethos and Pathos. Logos is persuasion by the arguments about the subject that is discussed. In a group of practice, the arguments play to the beliefs and values of the group. Logos is what helps institutionalize practice within a group. The stories that are told regarding how practice evolves rely on Logos for their acceptance and transmission. Ethos is persuasion by the character and credibility that the speaker manifests in his words. Ethos is very important within a group of practice because it

the experts that legitimize the junior members of the group. Finally, Pathos is persuasion by the feelings that the words rise in the audience. The sharing of values and beliefs within a group make its members very susceptible to the use of language around certain topics. As identities within a group of practice develop so do their feelings about certain topics. By addressing these topics one can expect very predictable feelings on the part of the members of the group.

As we study the actual practice of the bankers we increasingly identify the use of language as central to the execution of the practice and hence introduce the concept of "Rhetoric within a Group of Practice" and what role this seems to play in the development of the banker's identities as well as in the overall productivity of the group.

6.2.2 Identity within the Investment Banking Culture

People make identity claims based on how they view themselves and hope to be viewed by others. It is through observing their own behavior as well as the reactions of others that they maintain or modify their self-conceptions (Swann 1987). Professional identity is defined as the relatively stable and enduring constellation of attributes, beliefs, values, motives, and experiences in terms of which people define themselves in a professional role (Schein 1978).

In Kunda's (2002) work studying high tech Engineering cultures, he found that often employees identify themselves more by what they are not than by what they are. This is also the case with investment bankers who are keen to disassociate themselves from their commercial banking peers. The main difference between investment bankers and commercial bankers is that the former usually deal with much more important or wealthier clients. Investment bankers also make much more money than commercial bankers and usually have more of their pay based on performance. Lewis (1999) describes them as looking to attain as much money as possible in a short space of time. There are usually less women in investment banking as the conditions foster a

gendered culture of masculine aggressiveness (Lilley & Lightfoot, 2006; Zaloom, 2003) where to succeed employees must exude excessive confidence (Lewis 1999, Cook 2008).

Identity within banking is partially informed by a range of contextually validated performances (Cook 2008). In their participation, they recognize each other and are able to develop their identities through relations of participation. This identity creation is critical to the M&A department. It legitimizes the work that each banker does in their own peripheral way as they try to move from learners to experts.

6.2.3 The Mergers & Acquisitions Department

The area of Mergers & Acquisitions was chosen because this area of problem solving is valued by at a very high premium in comparison to traditional banking services. Clients pay this premium because they expect it to be unique and strategically important to their business. Unlike retail banks, which serve the individual public, investment banks primarily deal with the financial service requirements of other companies. These financial requirements may include taking them to the stock market, helping them raise funds, helping them restructure, managing their funds or in particular, helping them consolidate in the marketplace through finding either acquisitions for them or buyers for their divestments.

The M&A department advises clients, in both selling companies or parts of companies, as well as acquiring companies. While in many cases this service is very tangible and quantitative, in most cases it is the "intangible service" that their clients value the most. This "intangible service" usually takes the form of proprietary knowledge of the industry coupled with contacts with the most important participants in the industry. Prominent investment banks usually are responsible for advising the largest companies and as such are considered to be greatly responsible for the massive consolidation and globalization occurring in today's world economy. The M&A Department of an investment bank usually deals directly with the CEOs of companies

and can play a role in advising the client on strategic alternatives. In a way, this is the most intangible of the services, as you are providing strategic advice to CEOs. There is a certain "aura" about working in the M&A Department of a prominent investment bank. Referred to as "Masters of the Universe" by Tom Wolfe (1987) in "The Bonfire of the Vanities", the most successful investment bankers have made an art of "selling" their intangible service. It is the M&A department that creates the greatest interest and competition on the part of would be employees. Newly minted MBAs from the world' s top business schools begin working at investment banks as Associates on mathematical models as well as other deal related activities (Ibarra 1999).

The structure of these M&A departments is usually one made up of a few Managing Directors and several Directors which are the main client facing individuals which both find clients as well as provide a service to them. These Directors would then have several Assistant Directors working for them that would be their main line of support. It is the Assistant Directors that are responsible for making sure that the Directors have everything they need for the client. There would then be a "pool" of Associates and Analysts that would do much of the manual and analytical work associated with putting together the presentations or analysis for the client. These are directed by the Assistant Directors as they usually have little exposure to Directors themselves. It usually takes an analyst two years to become an Associate and an Associate four years to become and Assistant Director. Analysts can be straight out of university and are usually mathematically inclined sometimes being consultants, engineers and accountants.

The process that we will focus our fieldwork on is the "acquisition opportunity process". In this process, the Director usually generates an acquisition idea for the client. It then goes through several iterations of analysis and development by the Assistant Director, supported by Analysts, until it goes back to the Director, before being presented to the client. The Analyst uses whatever intelligence means at his or her disposal as well as networking across the organization in order to collect the information and further develop the proposal for the Assistant Director. The Assistant

Director at some point feels comfortable enough to present it to the Director who either feels it is ready or sends it back for another iteration of further development based on new guidance from the Director.

The M&A Idea Generation Process
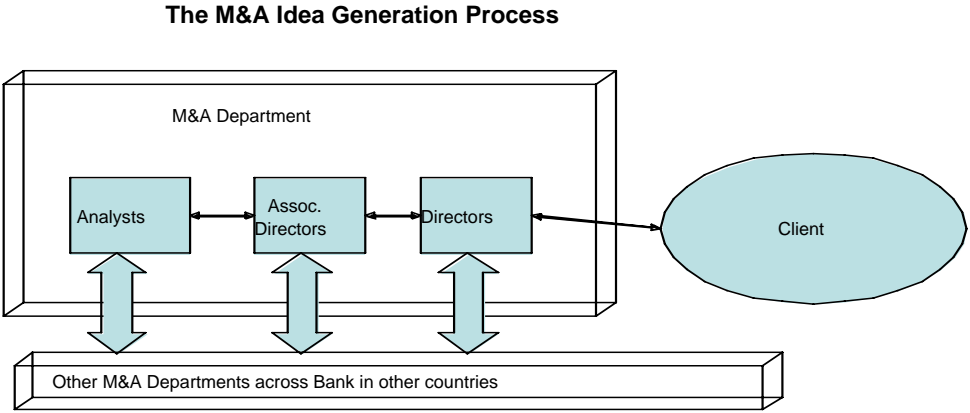
A significant portion of an M&A employee's compensation is directly tied to revenues generated. Revenues are generated when deals are won through this very competitive process, which at times can be very chaotic.

Productivity is based on generating maximum revenues while keeping costs under control. This means that the organization must leverage the Directors over as many Assistant Directors as possible as well as leverage as many Assistant Directors over as many Analysts as possible. It must use these expensive resources very effectively. From Analysts to Directors, the M&A department must do more, with fewer resources.

6.2.4 Previous Empirical Findings

In previous empirical work (de l'Etraz 2002), I initially conducted a series of exploratory interviews and ethnographic study within the M&A department inside the investment bank and identified several issues that conditioned the attitude and motivation of several of the individuals. The work in the initial fieldwork is important for the present study because it presents several "taken for granted assumptions" for most of the employees around their work habits and identifies several issues some individuals have with the existing work processes that could influence their behavior. This bank was chosen because its several managers felt that its revenues per employee were far below that of comparable banks. These managers felt that there was a serious productivity problem and could not describe the source of this problem.

Data analysis followed an inductive, grounded theory development process (Glaser and Strauss, 1967). Once it was observed that certain issues were strong themes in the data, several categories were identified. Five that were identified in the previous study, because of their potential effect on productivity, were:

a) The importance of **work ethic**: Does work have priority over personal life when it comes to working more hours? More work should translate into more problems solved and more revenue.

b) The importance of **business relationships**: How important it was to the bankers to build business relationships with senior people at larger companies. Better contacts could relate into more business mandates for solving problems and hence more revenue.

c) The importance of **knowledge**: How important it was to the bankers to accumulate expertise and knowledge about industries and transactions. Better knowledge could translate into faster problem solving and hence more revenue.

d) The importance of **money**: How important it was to the bankers to strive for higher revenues from clients that mean higher salaries for them. This also translates into more revenues for the department.

e) The importance of their **professional identity:** How do you see yourself? How do you imagine yourself? Do you use role models with the department? How does this affect your work and know-how?

After a second series of open-ended interviews, focusing on the previous categories, with 24 Directors, Assistant Directors and Analysts, as well as direct observation of a few individuals, the following initial findings resulted:

- The more senior the team member, the less respect and moral authority he or she seemed to command with a majority of the junior members of the team, in particular within the Analysts. Analysts in particular failed to believe that their seniors knew really what their clients wanted and whether their approach to the problem solving was correct. There seemed to have been a breakdown in credibility between some of the parties, based on seniority, either warranted or through lack of understanding or both.

- At all levels, many individuals observed a serious communication problem, while the more senior you were, the less problem you saw with lack of information, coordination and understanding amongst co-workers. There seemed to be a "disconnect" between many juniors and seniors in this area.

- The more junior you were, the more you seemed to question priorities and beliefs of your seniors around client work. There seemed to be an issue here with transmitting to the rest of the team a shared understanding of objectives.

- Most junior bankers played with ideas of provisional selves (Ibarra 1999), observing role models within the senior bankers to identify possible identities.

- Several Analysts, Associates and Assistant Directors, struggled with the types of performances associated with senior identity models, especially those individuals that were more analytical or academically quantitatively trained, exhibiting a fairly closed mindset (Toulmin 2001). They expressed disdain for "faking a certain way of being" of certain role models preferring to use their technical and analytical skills to craft a "well prepared" provisional self, one which was more "true-to-self" (Ibarra 1999).

With these previous findings in hand, we returned to the investment bank to focus more closely on a few particular individuals so as to attempt to gain greater insights into the phenomena we were observing.

6.2.5 First Ethnographic Fieldwork: "The Acquisition Idea Process"

The ultimate goal of the Director is to be able to play a role in determining the buying behavior of the client (Mathias 2005). He wants to use knowledge to influence behavior, to persuade the client to buy his services. Let us now look at an example of how the results of an "acquisition opportunity process" are used by the Director in front of the client. This example was developed from the notes of an Assistant Director who on one occasion accompanied the Director on a visit to the client. These notes were then developed by the Analyst in conjunction with the Assistant Director to create the example.

In this example, the Director knows well the CEO of a large UK Security company. They make alarm systems and have a new device that targets the elderly. It enables elderly people to sound an alarm while at home that can then inform the security officers at a

monitoring station. They can then send them help or call them on the telephone or both. The company is doing very well in the UK and is looking to grow in continental Europe through acquisitions.The Director arranges to have lunch with the CEO whom he knows well. At the lunch the Director gives the CEO a general description of where he sees the UK Company's industry going and how the stock market is doing for companies in this sector. The main image (Alvesson 2004), the Director tries to project is one of knowledge intensiveness and uniqueness.

"Few investment banks are as well positioned as we are to service your company. We have the knowledge of your firm, the market and the contacts to make sure you succeed. It is about creating shareholder value."

After the lunch the Director presents the CEO with a Powerpoint presentation that concludes in advising the CEO that he must make an acquisition in continental Europe in order to stop the investment analysts from saying that his company is too UK oriented. He needs to expand other European markets. The CEO is finally convinced and asks the Director to come back to him with several options.

The following day the Director informs his Assistant Director of this opportunity. There is a buyer here. We are close to him so he will listen to us. We have done many deals in similar industries in continental Europe. All we need is a good idea. Imagine the concepts here…elderly people…a high growth economy…a foreign language spoken outside…a positive view of English products…or a familiarity with English products.

The Assistant Director describes to the Associate what is required and then the Associate puts several analysts to work searching for suitable candidates using databases as well as other publicly available information. The Associate also speaks to bankers in other offices providing additional context to the search. Finally an Analyst identifies a company in France that has a security subsidiary that they may be willing to sell. He presents it to the Assistant Director who presents it to the Director who turns it down because the French market is too developed. He tells the Assistant Director to

focus on Spain as it fits better his original concepts. He is imagining a town in Southern Spain full of retired British elderly people… *"It's perfect, Spain has a growing elderly population and is a high growth market".* A few weeks later the Director arranges to see the CEO with an acquisition opportunity in Holland. The Analysts and Assistant Director have identified a subsidiary of a large telephone company, which may be willing to sell a majority stake to a logical partner.

The following week the Director and the Assistant Director arrange to meet with the CEO at the investment bank. They have prepared a leather bound Powerpoint presentation and will offer to conference call in the Spanish partners of the investment bank from Madrid to show the CEO that they are well represented on the ground in Spain as well. The Director begins by "selling" the CEO on the growth prospects of Spain and that there is a unique opportunity for his product. He stresses that most of Europe's aging population will eventually look to going to warmer climates. He talks about how millions of Americans have moved to Florida and California. Spain is the "Florida" of Europe. To make it better now over 12 new countries will be joining the European Group and they all have cold climates. What an opportunity! Imagine all the Bulgarians and Latvians moving to Spain to get some sun. Also, most of them will not speak Spanish initially, which will create an even greater opportunity for security system like his. Just imagine he says, you could call it, *"I phone home" or "PhoneHome"!*

Having established the opportunity, the Director now begins to discuss the target company in terms of financial data, all the positive facts about the company that he and the Analysts could put together are now presented to the CEO. The numbers make it very clear. This company can provide the UK company with additional income and profitability even if there were to be no additional synergies.The Director now begins to develop the final "punch". Not only do the numbers look good but now he presents the intellectual assets of the company. He begins to describe the skills of the employees and the dedication that they have shown to their company over the years. There are over 30 employees that have never worked anywhere else. In addition, they know the market extremely well. Some of them have spent over 20 years with the company. (The Director

does not mention, however, what it would cost to get rid of these under Spanish Labor Law. Under this law, in case you wanted to make employees redundant you have to pay them 45 days for every year they work in redundancy payments). Clearly the intellectual assets of the company are substantial and would be very difficult to replace. These knowledge assets, which are very difficult to put a value on, provide the UK Company with a tremendous platform from which to develop a local business well into the 21st century.

The Director argues that this has more value even then the hard assets of the company (He realizes that unless the CEO believes this there will be no way to justify the price being asked for the company by the seller). After a 40-minute presentation making all the necessary arguments, The CEO is now convinced. He wants the Director to set up a visit to see the company and meet with the company's owners. The Director agrees with the CEO a small retainer fee of 20,000 Euros per month plus expenses for the Investment Bank as well as a 3% commission if the CEO should acquire the company. The Director, in addition to an Assistant Director, will accompany the CEO on the initial visit to Spain.If we analyze this example carefully we find that the Director uses the four main tools of argument: fact, logic, metaphor and story. McCloskey (1990) reminds us that, as in many other fields of enquiry, Economics and business use these four main tools. In particular, she stresses the use of metaphor and story in business.

In the above example, the Director knows that the facts do not change. This company's financials are what they are and how the CEO reacts to them will depend on the context in which they are considered. Financial figures can be presented in a positive light, as part of an opportunity or in a negative light. The Director uses metaphors and a story in order to create a very positive context. The Director makes use of metaphors in order to compare value that you can measure with intangible value. He then develops a story around this to give the CEO the impression that this is truly a unique opportunity he should not pass up. In this first instance, he has persuaded the CEO to at least take this opportunity to the next step, which is to visit the company. Had the CEO not been presented this opportunity this way, he may have discarded it at the outset figuring that

any growth potential was already built into the high present valuation being asked for by the sellers.

Anyone familiar with the M&A process would agree that the role of the Director in influencing the buying behavior of the CEO has only just begun. The "journey" can be long and only ends when the acquisition is completed. This can easily take 6-18 months. It is not the words themselves that convince the CEO but the use of these words by the Director. This is what differentiates an expert from a novice in M&A, the use of this language in the form of metaphors and stories in order to develop a compelling argument on behalf of an objective, i.e. to take this opportunity to the next step. The CEO accepts these metaphors and stories because the Director and the bank he/she represents is credible to the CEO. Without this socially constructed credibility, it is unlikely this language would succeed in persuading him to go to the next step.

While for many, the above example may seem a bit exaggerated, it is a fact that over 50% of M&A deals today fail to achieve their goals and are in most cases considered a failure (M&A Handbook 2000). There are however, many other factors, apart from having been influenced by their bankers, which play a role in this. In particular, one can see that if intangible benefits far outweigh tangible ones, in the final analysis of the respective acquisition, then the role of Rhetoric in the justification of the transaction will be substantial. McCloskey (1990) would argue that even the tangible perceived benefits can be influenced by "subjective decisions" in the accounting.

Throughout this process the Assistant Director worked closely with the Director, whom he sees as a role model and several times attempts to imitate (Ibarra 1999) as he describes what needs to be done to the Associates and Analysts. Some of the Analysts don't follow this reasoning as well as others. It is usually the more senior ones that do with newcomers sometimes questioning the value added to the clients. There is a feeling of excitement however that is usually transmitted by the more senior members during the work associated with a particular client mandate.

In this particular case, the Assistant Director identifies two Analysts, very analytical ones, who struggled with the search. They had identified several opportunities which they felt were more suitable for the client based on pure financial merit and less on what the Director described as future potential associated with targeting the Spanish market and its future demographics

6.2.6 Second Ethnographic Field Study: "The Exit Interview".

In our previous fieldwork (de l'Etraz 2002), there was one particular Analyst, Dimitri, which had stood out in our analysis. He was one which had had a fairly quantitative academic training and seemed to struggle with some of the ambiguity associated with the processes within the M&A department.

Dimitri was not only, not surprised by the initial findings, but shared them strongly. He was a trained economist who loved mathematics and who had recently decided to leave the bank to do his MBA. He was about to have an exit interview with his Director before leaving the Investment Bank. It is fairly normal that during an exit interview of this kind the Analyst would be asked about his experience while at the bank and has an opportunity to present his opinion on issues of interest. It was during this interview that Dimitri, at our insistence, posed a number of questions to his immediate Director. Dimitri also had several issues he wanted to discuss, as well as ideas he had, which he felt might make work, in his department more efficient. The following sketch is based on a few of our questions (in italic), additional questions and responses given by Dimitri, as well as the responses of the Director. Dimitri took notes during his meeting and this sketch, approved by the Analyst, is based on those notes. This type of overt participatory observation was exactly what was required as the objective of the analysis was to describe the discourse of the Director as well as his implied reasoning.

Dimitri was able to take very descriptive notes because the Director "expected" him to do so. It was normal for an Analyst to take notes of everything a Director said.A few days before leaving the Investment Bank, Dimitri met with his Director at the Director's

office. He had a separate meeting that same day with someone from the Personnel Department which was much more formal and dealt with the necessary issues which the Bank needed, before the he left, in order to make sure that there was nothing outstanding by either party.

Director: *"Come in please...Getting an MBA is a good move. Don't you think? I mean...I think you need a better academic foundation in order to take your view of this business to the next level. Congratulations... you are going to a good school. So, is anything on your mind that you would like to share with me before you leave this week?"*

Dimitri: *"Thank you, yes well, I feel that, while my experience here has been very useful, I have been very frustrated many times at how disorganized everything is. I mean, many times, it seemed that there was no prioritization with respect to our work and that what we do could have been more efficient. There seemed to be lots of uncertainty about things. Don't you think this is a problem?"*

Director: *"I am surprised that you say that. Priorities are hard to establish in our business. The client is always the priority. This is not about approving credit cards in a large Bank. This is about keeping your client's strategic objectives always present and changing "gears" quickly based on your client's needs. I know it is not easy for you guys in the Analyst pool but this is the real world. You learn this way. This is not an exact science... it is about managing the right opportunities and optimizing situations quickly. Sure there is uncertainty, that is what makes it exciting and creates opportunities. I thrive in uncertainty especially when our clients come to us to help them create a clearer picture..."" I think what we do is very efficient. Obviously we get better everyday. The more of these deal situations you experience the more you know. Knowledge in this business is about imagination and creativity and communicating this creativity effectively. This know-how is what our clients pay us for. Even I... learn more... after every deal. The next time we do it better. A better idea, better communicated. The client knows this and values this increasing level of expertise."*

Dimitri: *"How do you always know what the client wants?"*

Director: *"My know-how is what my client wants from me. Many times the client does not really know what he wants. He just wants to grow his business and turns to us in order to help him grow it strategically. The better our relationship is with the client and the better our expertise, the better positioned we will be in order to influence the buying behavior of the client. Our views must influence him. He buys my judgment …and my creativity and imagination …because he thinks it is better than the guy down the street. That is why we are in the intellectual capital business. This is not an exact science…that is why we are paid the way we are paid. Part of what the client pays for is an intangible…and we are part of creating it for him…"*

Dimitri: *"How do you generate original ideas for the client?"*

Director: *"We take facts and combine them with experience so that we can then use our imagination to develop ideas that make sense and sell well. It is the best ideas and most original ones that get the attention of the client. This requires however credibility. Without that no one will be willing to listen. I am surprised you are asking that…that is exactly what we all do, including you."*

Dimitri: *"I have been here over 2 years and very few times have any of my ideas been taken seriously. I usually have no one to present them to … I spend most of my time chasing after the ideas of other people. It seems that the more senior you are the more your voice counts and since we are always so busy those are the only voices that are heard. The Analyst is usually never told much about the whole idea and spends his time working on the little analytical parts of it. We could all be much more effective if we were given a chance to present ideas and if whatever was going to be presented to the client was openly debated. I mean…maybe not much would change…of course …because you Directors …know this business better…but at least we would all have shared objectives and not instructions purely based on rank. This would remove some of the uncertainty.Many times we work for days on building a case for Directors on what to present to clients, providing*

tons of information, just so that you ignore it all and decide to present something that is much less coherent and ambiguous...it is very frustrating..."

Director: *"Shared objectives? We do have shared objectives ...and they are based on doing deals. Listen, this is not a non-profit organization. It is a real business. We cannot keep everyone in the loop all the time as otherwise the deals would get away. I know it is not easy but nothing stops Analysts from keeping informed as long as they get their work done. Don't forget you are helping write the presentations...it is here that you have a chance to develop your own ideas, using your imagination, in words. We all do that...you can't just imagine things and keep them to yourself or wait for someone to ask you what you think! You are always putting your words into the presentations. Believe me, that is how I got to where I am today and you can do it too. But first you need to start to think this way.*

You get frustrated because you want to remove all the elements of risk and are obsessed with the objectivity of the process...You still think that more information means better know-how. You think you are still in physics class. It's different here. Don't shy away from uncertainty...it is what makes us strong...as I said we should thrive in it. If the client could do this on his own, he wouldn't pay us for it...he wants our original thoughts, our creativity...you can't deduct that from data and information...you can only get additional validation from data sometimes...you don't seem to understand this business..."

The tone of the Director starts to get very impatient and he begins to look at his watch...

Dimitri: *"Well, Director, this has been very useful. You are probably right and I hope to learn much more in my MBA."*
Director: *"Great, well...keep in touch ...as you know we are always looking for good people and you have earned our respect here."*

Dimitri: *"Thank you...I will. Good bye.*

6.2.7 Contrasting the Exit Interview: An Interview with a Co-Worker

Much of the learning within this group of practice takes place while participating in the work being done and as such is mediated by the different perspectives among the individuals. Our analyst that was leaving to do his MBA worked very closely with another analyst who was junior to him but was being promoted very quickly within the analyst pool. The following is the extract of the conversation between The Researcher and this analyst (Analyst 2) during the course of the initial study, before it was known that Dimitri was leaving to do his MBA.

Researcher: *"Do you think productivity is a problem within this department?"*

Analyst 2: *"Not really. What do you mean?"*

Researcher: *"I mean have you noticed that the workflow processes sometimes breakdown and there is a lack of communication between analysts, Assistant Directors and Directors?"*

Analyst 2: *"Everybody is very busy so I can imagine that communication is a challenge because there is no time to waste but if things are important the work gets done and no one seems to complain."*

Researcher: *"What about objectives and Priorities? Do you feel that there are shared objectives and that these are communicated appropriately, by senior members of the team?"*

Analyst 2: *"Shared objectives? What is this some kind of spiritual retreat? We are here to do deals and help our seniors get deals done. It's about leading, following or getting out of the way."*

Researcher: *"Dimitri tells me that this place could be much better organized and that much time gets wasted because of lack of coordination and priorities. Do you agree?"*

Analyst 2: "*I don't know if Dimitri is suited for this business. He is a great analyst but very analytical ...you need to be able to 'think out of the box' in this business and not be too rigid. This is a very stressful business because we are competing with the best and there is not much time to create organizational structures that will dampen creativity and individualism.You constantly need to deal with uncertainty and make the best of it. I have no complaints. You should have seen where I used to work. That was a mess! It was uncertainty plus chaos because no one was in charge.*

I have seen many Analysts like Dimitri and they either can't take it and leave because the uncertainty kills them... but many of them stay because the money is good... they become followers...not asking too many questions...rarely becoming true leaders within the department."

I realized after the discussion with Analyst 2 that maybe this work was not for everyone. I had known Dimitri for over 6 years and he was one of the best analysts I had ever met. His work was very good. He loved mathematics and enjoyed building models more than anyone I had ever met. It was now clear from all our fieldwork that many junior members seemed to be having trouble accepting the way things worked today within the M&A team. For some it was the level of hierarchy which kept information in silos, for others it was clearly the uncertainty which made it more difficult for them to grow their identities along the lines of what was required.

6.2.8 Analysis and Interpretation of the Field Work

In the case of Dimitri, as in the case of most of the investment bankers in this bank, his attitude towards work is significantly influenced by the typifications we described in the introduction, which were analyzed in the previous empirical fieldwork (de l'Etraz 2002). These typifications play a major role in defining his beliefs and interests with respect to his work. They are part of his culture. They make up the beliefs and values of his culture (Kunda 2002). It is these values or taken-for-granted-assumptions as well as their shared base of knowledge, which make it possible for certain arguments to work

for the Directors. Their use of language in presenting their arguments is central to the creation, delivery and sale of their know-how. It is central to their work.

At the theoretical level, if we look at the role of Logos, Ethos and Pathos within this group we find that in a strong culture (Kunda 2002), the arguments play to the beliefs and values of the culture. In our M&A culture, the typifications are used extensively as the basis for arguments regarding the importance of the work and its meaning for clients. Logos is what helps institutionalize practice within a culture. The stories that are told regarding how practice evolves rely on Logos for their acceptance and transmission.

In the first ethnographic study we see that the Ethos of the Director with respect to the client is very strong. The client not only perceives that the Bank is very reputable and knowledgeable but also the Director. He "talks" their talk and projects a good understanding of their business. This external Rhetoric works well. In the internal Rhetoric the situation is very different. In our previous empirical work we saw how the Ethos of the Directors, in particular, had suffered because of the nature of the work processes. It is this part of the Rhetoric which seems to be the least persuasive within parts of our M&A culture. As our initial study showed, for many of the analysts in particular, the credibility of the Directors has been seriously undermined over time. The lack of Ethos makes it difficult to accept the Logos or practice. Ethos is very important within a culture because it is the experts that legitimize the junior members of the group and the questioning of that credibility can have serious repercussions to the development and growth of members within the group as well as the practice itself.

Finally, Pathos is persuasion by the feelings that the words rise in the audience. The sharing of values and beliefs within a culture make its members very susceptible to the use of language around certain topics. As identities within a group develop so do their feelings about certain topics. By addressing these topics one can expect very predictable feelings on the part of the members of the group.

The Director, in his answers to the analyst, during the Exit Interview, takes into account these beliefs and interests, which he knows he shares with Dimitri. This sharing of beliefs is a basic principle of Rhetoric (Bonet et al 2001). The Director knows that his persuasive argumentation (Logos) can be effective because he is "playing" to some of these "typifications". He knows how Dimitri feels about the role of "work ethic", "company relationships", "knowledge" and "money" in his work. He plays on these in trying to convince Dimitri that there is real "value" in what they do for clients and that the flow of work, as well as everyone's involvement, needs to be this way in order to create this value. The conversation and persuasion is part of the creation of knowledge or know-how in this group. Know-how in terms of what works and what does not, with respect to their work on behalf of clients.

The Director dismisses the idea that prioritization is important unless it is directly driven by the client. "Not all clients are created equal", this, while not said directly by the Director, is understood by Dimitri. In "their" world, influenced by their "typifications", clients are measured by the importance of the relationship and the money they can bring to the bank. Dimitri does not argue with this. He shares these views. While he shares the Rhetoric, somehow, he feels he has not always been part of it. Without the whole picture, the Rhetoric cannot be fully embraced the same way by Dimitri and he is left with a feeling of being "left behind", leading to confusion. His idea of their "world" and "typifications" becomes problematic. There is a breakdown in the way he shares the "world" and hence he is not fully "engaged" in his work and productivity may suffer.

What is interesting here is the role that we see the Director's Rhetoric playing in learning and developing know-how. As Dimitri "experiences" new situations, Rhetoric helps him understand these better. It helps him relate them to what he already knows. The Director goes on to imply that this "Rhetoric" must constantly improve itself so that we all continue to grow in know-how. Through her research distinguishing novices and experts in the job placement service industry, Bou et al (2003) argues that the difference between experts and novices is through "doing". Her research data makes the

point that while novices are more worried about accuracy and objectivity initially, experts are more focused on sensitive and personal aspects, leading away from formalized schemes. The Director would agree with her and claim that experts become better at Rhetoric. The Director seems to define know-how as better ideas, better communicated.

The Director implies that ideas come from our creativity and imagination. Murray (2003) refers to Rhetoric as the management of image, or imagination. This is probably what the Director has in mind when he talks about imagination. This is not about letting your mind go wild looking at the stars. It is about using your "typifications", your "situated" view of the world, your *situated Rhetoric*, to drive the images in your mind towards a certain direction and then capturing these "threads of ideas" with words. If one could map all the threads that feed into an idea one might find that it is a combination of many threads of imagination (Rhetoric) in words. This is the process that the Analysts go through everyday as they take the Rhetoric coming from "above" and continue to develop it into more and/or better words (better Rhetoric).The Analysts may spend days working on presentations when they are told to develop ideas. Finally the Director is the one to decide whether a presentation represents the desired idea with the best possible Rhetoric.

McCloskey (1990) says, "The premise that you can split content from expression is wrong. You do not learn the details of an argument until writing it in detail, and in writing the details you uncover flaws in the fundamentals."   This is exactly how it works in this M&A department. Once the idea is conceived it must be prepared for presentation and as it is put through iterations of detailed work, either it is refined or replaced with a better one that results from putting this all in written form. Even conceiving an idea is many times the result of innovative thinking resulting from material that is in written form. In the case of M&A, the process of developing the presentation is a fundamental enabling process to knowledge creation. Clearly, new ideas occur in writing. While the Analyst has a difficult time debating ideas openly, he is able, to some extent, to develop ideas as he helps develop the presentation. Without the

full "story" or Rhetoric however, he is not as able to optimally contribute in the development of the full idea. Embracing this process however sometimes requires a more flexible mentality, one willing to sacrifice analytical rigor for better Rhetoric at times.

For Scott (1994), knowing, is what you believe, in a given context, following reasoned debate. For Dimitri, doing knowledge work, this debate is exactly what is required to increase productivity in his M&A team. His beliefs are very much influenced by his vision of the world. A world, strongly influenced by typifications, which helps him differentiate between what is important for his work and what is not. While his beliefs are shared amongst his colleagues, his morale is not. His morale is influenced by the extent to which he is part of the Rhetoric.

He feels that he needs to have common, shared objectives and that these can only result from openly debating ideas and strategies around clients. Today very little open debate occurs and decisions are primarily based on rank. This results, as was seen in the previous fieldwork, in a credibility problem between juniors and seniors. It affects credibility because juniors may no longer feel that they are learning from their seniors. Learning is about adopting Rhetoric. If you are not part of the development of the Rhetoric you begin to question it, eventually you question the credibility of those handing "down" the Rhetoric. If the Rhetoric is not shared you do not learn and your morale suffers. This then results in a lack of communication and confusion as there is the feeling of no or little prioritization of work. Priorities become disconnected from the Rhetoric and as such are not shared or understood.

As we have seen, much of the knowledge work in our M&A fieldwork was based on Rhetoric. We see that Rhetoric helps construct knowledge for the member of the group, playing a key role in the creation, presentation, delivery as well as the origination of the business. While our findings are based on very limited research, they would initially seem to imply that there is a strong connection between the level of productivity in knowledge work and the extent to which the Rhetoric is shared by the team of

knowledge workers. Could it be possible, however, that these individuals, that have a problem adopting Rhetoric or learning, are not really identifying themselves with the Culture? In the case of Dimitri, as well as several others in the group, we find that their academic backgrounds are very quantitative. In many cases they are engineers, mathematicians or physicists. Maybe Analyst 2 is right and Analyst 1 and so many others, as our preliminary fieldwork suggests, just do not fit in this department. Maybe they don't adopt the Rhetoric, not because it is not shared, but because they struggle with the uncertainty and ambiguity associated with it. For some of these analysts, at some point, the nature of their work begins to change. This occurs when the character of their work becomes increasingly influenced by persuasive language. Most initially do analytical work, which is "packaged" by their seniors for client presentations. As the analysts become more involved in the final "packaging" of the pitches, their goal becomes to make sure that they only use "facts" that can support their messages.

Wenger (1998) defines practice as doing, but not just in doing in and in itself. It is doing in historical and social context that gives structure and meaning to what we do. Our communities are places where we develop, negotiate and share our own theories and ways of understanding the world. The bankers contribute to the negotiation of meaning by being a member of a group and bringing to bear the history of participation in practice. In their participation, they recognize each other and are able to develop their identities through relations of participation. This identity creation is critical to the M&A department. It legitimizes the work that each banker does in their own peripheral way as they try to move from learners to experts.

Each banker's participation is based on a continuous "negotiation" and "renegotiation" of meaning of the world. As each banker grows in "knowledge" or "Rhetoric" it is not only in relation to certain activities but in relation to a group. It involves the construction of an identity within that group. Dimitri does not feel comfortable today with his identity within the group and while he claims it is because the Rhetoric is not shared with him, it seems that he does not or is unwilling to, adopt the Rhetoric either.

Dimitri has trouble understanding his role within the group. He, is also viewed by others, within his group, as possibly not fitting. While he has adopted their "typifications" of the world, it is in practice that he has trouble evolving and learning. There is no transformation of his identity to the next "phase". Jordan (1989) argues that learning to become a legitimate participant in a group involves learning how to talk (and be silent) in the manner of full participants. Lave and Wenger (1991) make it clear when they say that, "For newcomers the purpose is not to learn from talk as a substitute for legitimate peripheral participation; it is to learn to talk as a key to legitimate peripheral participation". While Dimitri has acquired much of the knowledge he needs as an analyst, he has probably reached his limit in this group because his sense of identity has failed to develop and this is inseparably related to his ability to learn.

Dimitri, as we have recognized, is very knowledgeable. He had no trouble in translating knowledge to information. He struggled within this group, however in translating knowledge into practice. In particular, he seemed to struggle with the uncertainty associated with the practice. He struggles when he sees Directors ignoring much of the work that is done by the Analysts which is supported by "tons" of information. As the Director says to him, "he is obsessed with objectivity" (Porter 1995) and does not realize that much of what the client wants from the team is original thought that is based on subjective views from the Director whose judgment and expertise he trusts. He cannot help it as his mathematically minded mentality (Toulmin 2001) makes him uneasy in this highly ambiguous process and makes him look for reasons to complain to the Director. His initial reaction is to blame it on the lack of prioritization of the process where he claims that objectives are not shared.

Discussion

In light of our previous empirical fieldwork (de l'Etraz 2002), we started this research expecting to find that in order to improve the M&A department's output, that the issues of values and identities would be an important factor in sustaining a necessary level of

active participation among the members. Our two ethnographic studies have reinforced this line of research.

An identity development approach allowed us to understand better the role that identity plays in a group and how this may affect the level of participation. In this study we have seen how Rhetoric was critical to the creation of that identity and how identity conflicts can play a role in the questioning of the cultural values and principles with ultimately affect the level of output of an individual.

In addition we found that Rhetoric is an important component in the creation, improvement and internal propagation of their knowledge or know-how. While our research is very limited, there seems to be much that we can learn from a identity development approach to looking at knowledge work and in particular, the role that the adoption of Rhetoric can play in making it more productive.

For many analysts, more information should mean more certainty. This mentality is not only obsessed with the objectivity behind the quantification of work but often also strives to code uncertainty as risk, in an attempt to make the world more computable (Blyth 2010). This drives very much their whole work ethic and is what makes them struggle when they see decisions sometimes based not so much on detailed analysis but on "gut" feelings or ideas that "sell" and play well with clients. There is an obsession with objectivity (Porter 1995), which these Analysts exhibit as they go about their work and present it to their seniors. Over time many of them begin to understand and accept the Rhetoric associated with this type of work, some even develop some of their own and grow within the department. Some others never quite embrace it but "fake it" (Ibarra 1999) and stay for the money or are happy being the analytical types behind the scenes and never being fully client facing, happy to leave the "performing" to others.

Several authors have looked at how performance is a vital means through which actors work to sustain an identity in environments pervaded by uncertainty (Cook 2008). Collinson (2003) argues that people who are insecure at work can become skillful

manipulators of image so as to secure the most favorable identity possible in the eyes of authority. Sturdy (2006) goes on to describe how doing an MBA boosts self-confidence after a period of uncertainty. Alvesson and Robertson (2006) describe the construction of "elite" identities fostering reassuring self-images of competence and respect in ambiguous circumstances. For some of the Quant members of the Analyst pool, as in Ibarra's (1999) study, inhibitions experienced in client interactions prevented them from displaying their "true" character and competences. The Quants struggled in finding senior role models among the "performing" Directors.

As we turn towards some those individual's who struggle within this investment banking group, we conclude that a better understanding of identity development within the culture of quantitatively minded professionals is an area that warrants further research. We find that identity development is not just a process of producing possible selves but also one in which individuals select and discard the possibilities they have considered (Yost, Strube and Bailey 1982).

The literature to date has paid little attention to the role played by self-conceptions during socialization, in particular how images of desired future selves serve as catalysts for identity development (Ibarra 1999). We have found fewer instances of how a quantitative mindset drives one's existing perceptions of oneself and conditions future possible selves (Markus and Nurius 1986).

Chapter 7 – Second Case Study: Quant Mindset Struggle. A Personal Experience.

7.1 Introduction

7.1.1 Aims of this Study

This chapter is an exploratory analysis of the first hand experiences of the Researcher, during a period of his professional life, which reflect how his own mathematically minded mentality (Toulmin 2001), struggled, when confronted with professional situations involving levels of uncertainty he was unaccustomed to. In particular, the individual is faced with situations where one's ability to effectively persuade other individuals is critical to doing one's work. The Researcher's academic training, as well as his initial work in computer programming, had failed to identify and prepare him for the type of rationality he was now being confronted with, in these new work settings. While in the past the individual was able to persuade his bosses and clients of his expertise and value, through producing "good" computer code, now he was confronted with a much less rational setting, where one's ability to persuade through the command of Rhetorical language, in the context of highly uncertain situations, was critical to success.

The new situations require different types of arguments (Bonet et al, 2000) and soft skills that are difficult for his type of mindset to accept in many cases. The professional who is used to seeing the world through the lens of mathematical models and has always had a keen obsession with objectivity, now begins to experience the other side of business, one which is much more uncertain, and less rational, where effective Rhetoric (Eccles & Nohria 1992, McCloskey 1998, Bonet et al 2001) plays an important part in the persuasion of individuals. It is a side of business where he is exposed to actors with different moral judgments where in order to do his work effectively, he is forced to reconcile these within his own professional morality, which is conditioned by his mindset and professional identity. His journey is one example of

the professional identity development, at an immense personal cost, of one quantitative professional determined to succeed in a business setting for which his academic training has not prepared him for, and how this ultimately changes his professional identity (Ibarra 2000). His struggle is not one caused by external forces but occurs internally within his narrow mindset, which within a short period of time is forced to accept other ways of rationalizing work activities. He is exposed to a level of Rhetoric, which causes a "creative tension" (Eccles & Nohria, 1992) for him, which not only gradually changes the way he sees his work, but he eventually embraces it and subsequently masters it so that he can persuade others. It is the use of this effective Rhetoric which itself brings clarity in ambiguity for the individual. The individual has not only learned a new set of skills, he has learned that in order to effectively use those skills, he must accept a new more open mentality which allows him to believe in what he is doing and through Rhetoric, excel in highly ambiguous situations.

The study's aim is to provide insights into the professional identity development process and the role of Rhetoric and narratives in identity development.

7.1.2 The Period and Conditions for the Study

The empirical work for the study is developed through the analysis of several notes and accounts of the Researcher where he has reconstructed an approximately 9-month period of his life in 1984. The Researcher had recently completed undergraduate and graduate studies in Mathematics and Computer Science. In particular, he had excelled in computer studies where he was the recipient in 1982 of the Kodak Award in Computer Science.

The names of many of the characters and the institutions that have been described are fictitious in order to maintain confidentiality.

7.2 The Story

7.2.1 The Background

As I made clear in the Researcher's Journey section, all my life I have been a fan of mathematics. There was something masculine associated for me in studying mathematics or sciences (Lightbody & Drundell, 1996) and my identity development as a child was strongly affected by my mathematics education (Boaler, 2002). I always felt I was more serious than my student peers and more interested in quantitative discussions than in qualitative ones. I usually felt at a loss when talking about social aspects of things and preferred to discuss topics associated with what I considered to be "facts". My interests as a child, in terms of what I wanted to be in the future, were greatly influenced by this exposure to natural sciences and mathematics (Schreiner & Sjoberg 2006).

After many years of enjoying mathematics from my junior high school days, studying Algebra and Calculus, I graduated from Boston University, with a BA in Computer Science in 1982 and then continued to study, part-time on a Masters in Computer Science. Since 1982, I had also been working fulltime for a large computer software company in the outskirts of Boston on Route 128, which was very well known for computer companies. It was at the beginning of my second year there that my boss, Boris, decided to leave the company and take his entire team with him, in order to start a new venture. It was at that time that I was asked by Boris to help raise $2 million dollars for his company, which would create one of the first report generating system developers for the original IBM PCs that had just come out. He asked me to start as soon as possible, working with our team, outside of company time, to develop a full-fledged business plan to present to investors.

7.2.2 The Business Plan

Developing a business plan for the new venture was much more work than I had envisioned. I borrowed many books from the library on putting together business plans and settled on a few that I could summarize into some basic guidelines, which I could follow. I tried to develop a very systematic approach by organizing the work into several areas: Executive Summary, Market Research, Competition, Marketing Plan, Operations Plan and Financials and finally the venture valuation. I assigned each section to a different person on our team and after a couple of weeks began reviewing the material they prepared for me. I took each section at face value because I was not an expert at any of them but asked Boris to make sure he reviewed them all. The financials section was assigned to Boris and this was the one that gave me the biggest headaches. It seemed as though we could not stop arguing between each other with respect to the financials for the new company. Boris insisted on projecting revenue numbers that were far from what I thought were realistic and gave the new venture a break-even scenario within the first year. I thought that his future scenario was not realistic.

One day after several hours fighting over revenue numbers, he said to me, *"Paris, you are a mathematics major, not a businessman, you have no idea of how the real world works…if we tell the investors… that we are convinced we will be able to sell so much in the first year…. and argue it persuasively… then why should they not believe us?"*

"Boris, you are right, I don't know much about this business, but I do know that over 80% of technology companies take three years or more to break even. It is statistically proven and documented. So there is no way you will convince anyone of your financials", I replied.

This exchange was by now very common between Boris and myself and he always seemed to convince me for a while, telling me that I needed to understand that "perception is reality"and that most financials in business plans were what he

described as "mental masturbation", so I needed to relax and not take the numbers so seriously. I could not agree with his view, for me the financials were supposed to be the most unquestionable part of the business plan. I saw the other parts as being very subjective and difficult to defend. I decided to ignore his projections and kept in my own. After all, I would be presenting the business plan initially to the investors I found, and I, would have to defend them.

For several weeks I built up a business plan for the new venture. I was convinced I needed to gather as much information as possible and talk to as many members of the team as I could to make sure I had covered all the main points of our business. When it was ready, I started planning my approach to Venture Capital funds in New York City. It was a fairly simple exercise I thought. I managed to get a list of venture capital funds by the industry sector they invested in, and started making calls to those that invested in software. It didn't take me long to realize that I was not the only potential software entrepreneur looking for money. Call after call, I seemed to be getting the same response, "send us your executive summary and don't call us, we'll call you." One investment analyst even told me that he went through about 20 executive summaries of business plans per day and that the software start-up business was booming but that it was also very competitive.

As the weeks went by, with no progress, I got more frustrated with this approach and I decided finally to go to New York City myself and visit some of my banking friends there to see if I could get introduced to some of these funds. A friend of mine at Citibank introduced me to a small fund in Manhattan that specialized in the new PC software market. I called up one of the managing directors and he suggested I come by that afternoon to present him the executive summary. When he finished looking at the executive summary he said to me,

"Can I see the financials or do I need to sign a Non Disclosure Agreement?" Not knowing very well what to respond, I handed them over to him. He looked them over quickly

and said, *"I can see you guys are either fairly conservative or you don't really believe much in the future of this company…what is it?"*

"Conservative…", I replied.

"Yeah, well that's what they all say…", he said. He then glazed across all 24 pages of the business plan and then finally looking again at the financials, while I remained quiet, he said, *"Thanks for your time buddy…give my best to Tim, …good luck with this, it looks really good…but let me give you apiece of advice, I invest in many software companies all the time but the most important thing for me is not the so much the idea but the people behind the idea. You guys need to sell yourselves better otherwise you will never get any money,"* and he showed me out.

As I went down the 35 floors down to Park Avenue I kept thinking about Boris…and the mental masturbation comment…."perception is reality"…right… I thought to myself. Boris was right. Somehow I felt I was at a loss in this type of a situation. It made no sense but I would have to learn to deal with it. This guy was not interested in my view of reality, he would decide for himself what was realistic…he wanted me to sell myself, and the idea. His mental analysis was not what I was used to. It was not, what I would refer to as, totally rational for me, as it left me with a sense of confusion with respect to what he was thinking as I had left the room. I was not used to that. Usually when I presented my work at school or at the office, it either worked or not and in either case, I felt I knew what my counterparty was thinking. His reactions were predictable. In this case I had no idea what thought process had resulted in him seeing me out that morning. I mean I was there to sell a software company, not a used car!

My next meeting with a venture capital fund went very well. I took Boris' advice and left in his numbers. The banker didn't even say a word about the financials. I didn't say too much either, just enough to get him interested in meeting Boris as soon as possible. A week later he met Boris and the team. Boris had been brilliant, as he was

used to saying, he had sold the "hell out of it." After two months of due diligence, the fund invested 1.5 million dollars into the new company. Amazingly, with Boris' help, I had done my first deal.

Little did I know that the managing director of this fund was a close friend of Andy Feinberg, who was a good friend of mine from College. Andy had gone to Harvard, which was nearby Boston University, and his roommate was one of my best friends. Later that week Andy called me and asked me to come to New York to see him. We had a long lunch together during which he described to me what he was doing and how difficult it was to find people he could trust. Andy was now running his own Real Estate Venture Capital firm and by the end of our lunch he had offered me to join him as a Vice President. He had only one condition. I had to do his 6-month Training Program before starting on the job. He said,

"Paris, you are a nice Catholic, nerdy type...you will get eaten alive in this town if you don't learn to sell well by phone and face-to-face. You need the right people skills and to be able to think "out of the box". You need to "open your mind" and I don't mean socially or as a person, I mean in business. This program will be the best thing you ever do professionally...believe me."

I felt very lucky, as I knew Andy was a very successful businessman and many guys would have died for a chance to work with him. I was ready for a change I thought. For the first time, this software deal had made me feel that my professional future could be outside of computer programming and mathematics. I felt I needed to change my frame of mind professionally. I was too used to approaching professional engagements as if they were like a Pascal program, where I would define the variables, make certain initial assumptions, and keep to a structured script whose outcome was very predictable. It was time to try something else, not to mention that there seemed to be more money in doing deals than in programming.

7.2.3 Discussion: Logos and a little more...

In my transition to my new way of looking at business, my experience with the business plan was clearly an eye-opener for me. After weeks of working on it, in my own structured way, I had created a PowerPoint document that was a reflection of my high tech mentality and identity (Kunda 2006). After my first presentation to a potential investor however, it took me very little time to realize that Boris was right and that no matter how diligent I had been, there was a component to getting someone to "invest" in you that required a level of persuasion (Bonet et al 2001), which I was not used to. This was my first exposure to what I would learn to excel at over the next few weeks, effective Rhetoric (Eccles & Nohria 1992, Bonet et al 2001). While my focus with the Business plan had always been on Logos, persuading by logical means, I now realized that this was not enough. Throughout my academic and professional career, however, it was all I had needed.

7.2.4 Moving to New York

The move to New York was exciting. After spending so many years in Boston, I had grown acquainted to it and the thought of going to a big city like New York was a bit intimidating. I rented a U-Haul truck, drove to NYC, and moved all my belongings into an apartment on 86th Street and Park Avenue. I was lucky to have found an apartment belonging to a friend of mine that I could share with one of my best friends from high school.

The weekend before starting work, Andy came to see me and we went out for a drink. Andy was a very intense person, never totally relaxed, always talking about work and money. I enjoyed that as well, as I wasn't big on small talk. I realized then, that all my life, I had also hated reading fiction, and saw it as a waste of time. I was into facts and only facts. Andy was excited about me joining his firm but he stressed that completing his training program was very important. I told him that I realized that "soft skills" were important and that I was sure they would help me. He added,

"Paris, this is not just about learning soft skills, it is about a change in mentality….your way of seeing things has to change…you now feel empowered by what you know… and the knowledge you attain everyday…its what you don't know, and how to effectively deal with it, that is what you should be striving for…that is where the power is, in your ability to deal with uncertainty and still prevail…and usually at the expense of others."

I did not realize at that time how much I would remember this conversation with Andy. Prevailing under conditions of uncertainty…how could one plan for that? What skill did you need for that? Was it something you could learn? It didn't make any sense to me then.

7.2.5 The Tele-Marketing Job

On Monday I began the Training Program. Andy picked me up in his black limousine and his driver drove us down to the New York neighborhood of Chelsea, around 24th street, on the West side. Andy had told me, the night before, that I would only need jeans and a t-shirt for this job and since it was July, it was not all bad as it was very hot and humid outside. I just wondered what kind of a company this was where I was going to work in jeans. After getting through traffic, mainly down 5th Avenue, we arrived to a rundown warehouse with a sign outside that read, "Tele-Magic Inc.".

The Tele-Magic offices were one big open area of about 4,000 sq ft. where over 35 young people sat in makeshift cubicles making phone calls. On one end of the space was a large glass enclosed office with a large blackboard on one side where one could see a ranking of sales for the week. It was of who had sold the most. There were 20 people in the ranking so about 15 or so would never make it to the board that week.

Andy was received at the door by Scott Rieter, who owned Tele-Magic and after introductions, Scott looked at me and said,

"We've been waiting for you, Andy told me all about you…come over here and we'll set you up."

As I sat down I could hear Andy talking to Scott and telling him that if I didn't "work out", Andy would pay him the agreed amount for putting up with me here for three months! I felt a bit strange, most of these kids on the phones were probably 18 or 19 and here I was 24, with almost two Mathematics degrees and two years of Swiss boarding school… about to start working in an old warehouse, doing telemarketing.

Andy left me there and told me he would be back on Friday afternoon to see how I was doing. Within a few minutes Scott was explaining to me how it all worked. Tele-Magic sells computer hardware directories across the country. These are 3 volume book sets that list all the installed computer hardware at over 50,000 companies in all 50 States. Their sales price is $850 but we could discount them up to 30% and still receive the salesperson's commission of $100 per set of 3 volumes.

That afternoon I made my first few calls. We were all provided with lists of possible buyers or "leads" to use for cold calling. My first few calls were a disaster…I could not get past operators, they kept saying to me that I needed to send an email to the sales department with whatever offer I had. I started putting together an introductory email that I thought I would send to everyone. I followed this approach for a couple of days and soon realized that no one was answering my emails. Scott came over to see me on Wednesday afternoon and was quite surprised to see my approach,

"Paris, you need to make the calls…you need to persuade people to buy these directories…an email is not persuasive enough. This is an expensive sale and you need to convince someone to get them to spend this kind of money."

Scott then introduced me to Dennis Reed who sat not far from me and asked him to give me some advice. I was starting to get worried, Andy would be coming on Friday and I was not only, not on the blackboard, but I had not even closed one sale!

Dennis was 19 and was trying to save enough money to go to college because his college entrance SAT scores were not good enough to get financial aid. Just graduated from high school, he joined Tele-Magic.

"Believe me…I was having a hard time initially as well…why don't you sit here while I make a call and we can discuss it afterwards, he said.

I looked at the blackboard. Dennis was 4th on the list.

"I've made it to number one many times….but this week is kind of slow…I've only been selling 2 or 3 a day".

Wow, I thought to myself, that's about $300 a day…not bad for a teenager. I moved my chair around and waited for him to start his call.

"Good Morning, this is ABC software, correct? Great, what is your name Miss? Thanks, Becky…that's a nice name….my name is Dennis…Becky…maybe you can help me honey…I need to talk to your head of sales or someone you think might have an interest in getting his hands on a really amazing database of possible sales targets for ABC. I hope you can help me because I have had such a hard time getting your number…"

I could see that Becky responded positively by the look on Dennis' face and the victory sign he flashed at me….

"Great Becky thanks so much…I hope we speak again…."

Scott lets me know that Becky has transfered the phone to the head of sales of ABC….

"Good morning Mr. Taylor…my name is Dennis Reed from Tele-Magic…you are one lucky guy…Becky is a doll….she is so helpful….by the way, I have something I believe you may

have an interest in...I am calling from Tele-Magic in New York City and we are running a special offer today on an exclusive directory of computer hardware installations of many of your competitor's target companies. We are convinced that once you see this product you will agree that ABC should be targeting these same potential customers. They are high growth computer users... I am prepared to give you a 20% discount today on our standard price of $850...would you like me to tell you more?"

Dennis explains a bit the database product and why it should be of importance to ABC...

"Mr. Taylor, I tell you what? Since time is money and I know how busy you must be... and I need is one more sale this month to close my quota, I'm prepared to give you an extra 15% off...yes, that's a total of 35% off if we can close this now. What do you say boss?.... Great, I appreciate it, I will give Becky all the details...have a nice day..."

Dennis could not believe it himself.

"Wow, I did not expect that to be so quick! Some times, it happens," he said.

I told him that there was no way I could sell like that. There was so much passion in his voice, he said all the right things, I, was a total nerd on the phone, I thought.

Dennis insisted, *"Paris, this is not about just learning speaking skills...you need to have the attitude. I come to work every morning and I think, fuck yeah, the world is my oyster...it is there for me to eat ...or I will be eaten... It is this attitude that makes me approach this call this way. You can memorize most of my speech, but it needs to be delivered by you. You need to believe in what you are selling and believe in yourself, more than in what you know about the product. I'm not going to teach you passion, you either have that or you don't, but expressing passion well is a skill that can be learned and practiced... excelling at this skill requires seeing your job in a certain way, a belief in*

what you are doing…your attitude towards how you feel about your work needs to be right. You also need to need it. How bad do you need this Job?"

"I do need it", I replied, trying to convince myself. Ok, maybe I didn't need the money as bad as Scott did but there was something more at stake for me I thought, than just money. I wasn't very sure yet of what that was but it seemed increasingly important.

Every Friday now, for three weeks, Andy would come by the offices and look up at the blackboard to look for my name. It was almost a month now and no sales. I had given up on the emails during the first week and was now trying to memorize a typical "Dennis sales pitch". In the second week I started talking more to the secretaries to see if they would let me through to someone but no luck, usually. A couple of times I made it through but got nervous as soon as the potential client started making me feel uncomfortable with questions I couldn't answer. I was about to give up when Andy called me one afternoon and invited me out to dinner.

At dinner, Andy seemed genuinely interested in helping me get out of this depressed state. I told him about my last three weeks and he suggested I spend more time hanging out with Dennis and tried to understand better now not so much how Dennis did this, but why he did what he did? He felt I was trying to be too prescriptive as if I was a consultant looking for "best practices" or speeches to memorize or an easy to follow process that would work.

"You need to become more like Dennis instead of trying to copy what Dennis does…get into his frame of mind…don't try to be so much in control yourself…this is not a computer program…you need to let go…get into his mindset Your mentality is way too narrow and closed…you are starting to feel the tension, now let go…"

I promised Andy I would give it another shot. I felt bad that Andy was paying me my salary to learn this and on top of that, he was going to have to possibly pay Scott for keeping me at Tele-Magic for making no sales. That was three thousand dollars a

month plus possibly another thousand a month to Scott. I was starting to feel bad about this.

The next day, I offered Dennis some extra cash if he was willing to help me train. Surprisingly he refused to accept any money from me and offered to do it for free.

"*I'm sure you would do the same for me*", he said.

For two weeks I spent most of the day at work with him. Dennis kept trying to convince me that what was important to selling was not so much what you were selling but how well you "connected" with the other party. I needed to be able to "connect" better, but I realized that connecting with a possible client for me was something I felt very insecure about because no matter how well I knew our product or how smart I felt I was, it wouldn't help me to connect. I needed to step out of my frame of mind, my way of seeing the world, my internal model of how things worked, maybe even my model of man, that totally rational man (Spender 2009) that I always assumed on the other side. I had trouble accepting that maybe my counterparty wasn't using the same sort of rational mentality to rationalize my arguments (Jensen 2000). Maybe that possible client was less interested in all the intricacies of our product and more into intangible elements of my offering, or proposition. Again, as Scott would always tell me...be more persuasive. I wasn't used to being persuasive at work. I felt it had not been a necessary part of getting things done in my past. For me the best persuasion was seeing something work. Facts should be all you needed to persuade. But here, there were no facts, it was more like stories and I hated stories. I hated fiction. I felt it was a waste of time.

Once a week Scott would gather the whole team and give one of his "Go get them!" speeches to keep the team motivated. He made a big point about us trying to obtain "share of mind" with our potential clients. We needed to know just enough about our product but concentrate on making that "connection" with them so we could engage them in what he called a "share of mind" discussion and influence their buying

behavior. We needed to persuade them to become buyers even if they hadn't bought this sort of product before.

"It is in this sort of discussion when you connect with your client, that he takes you more seriously and you have the ability to affect his buying behavior. This was not only a salesperson's dream…it was a critical part of doing business", he stressed.

I realized that getting share of mind was more like an art than a science. As much as I knew this was going to be very tough for me, I knew I could not let Andy down. Something made me think that the stakes here at Tele-Magic were much more important for me than I realized now. "Share of mind" for me had always been a function of providing more information than anyone, in a well-structured format, with logical arguments that made mathematical sense. I had always felt that the more information the more certainty. Here I had little of both.

After a level of dedication that I hadn't experienced since college final exams, and after five weeks into my "training program" at Tele-Magic, I made my first sale. The whole room burst in applause as Scott announced my first non-discounted, $850 sale to a large software company in Silicon Valley. I felt great. Many had speculated on what was going to happen to me at Tele-Magic. It had all come to a head last Friday when Andy had come by and looked up at the blackboard and Scott had said, "Mr. Feinberg, maybe you should call ahead from now on…so you don't waste so much time coming here…" Something had changed for me then. I had had this feeling that I really needed to prove myself not just to Andy, but to myself. Since the West Coast was 3 hours behind us I had stayed that day at work until after 9pm and was determined to work 12-hour days until I got my first sale. I felt good now with my first sale, I had a feeling I could now prevail on this job.

For the next few weeks I worked incessantly, sometimes 14-16 hours per day. It was during week 7 that I got on the blackboard, 5 sales in one week. Andy had kept coming every-week and the look on his face this Friday when he saw me in position number

17 out of 20 was that of being genuinely proud of me. He came over to me and gave me a pat on the back, smiling and walked back to his limousine.

By week 10, I was number 12 on the board. I now had only 2 weeks to go and every Friday when Andy had come by he knew that I would be on that board, so he barely looked at it and just always shot me a victory sign and a smile. During my last week at Tele-Magic I worked like crazy and I made it to number 2 on the board, beating Dennis that week. It was a wonderful feeling. I broke down crying in the men's toilet when Andy left that Friday afternoon. He was so proud of me. I was so emotional I couldn't control myself. While I couldn't say then that my attitude had changed, I knew that there had been a change of some sort in my approach to dealing with the uncertainty of doing business. I no longer feared it, well at least not on the phone!

That night I went out drinking with Scott and Dennis. I was feeling good about this training program. Little did I know what was in store for me on Monday when Andy would pick me up to take me to the new location where I would learn to sell "face-to-face" for the next 12 weeks.

7.2.6 Discussion: Logos and Ethos

Computer programming had always been very straight- forward for me. My counterparties were easily impressed when my programs not only did what they were required to do, but did so quickly and in a creative manner, that opened up new possibilities for additional functionalities. I reveled at impressing my boss with better and quicker computer code that held the promise of taking our software to new limits. This brought me great pleasure because I controlled it and I was good at it. In 1982, I received the Kodak award for Excellence in Computer Science. Yes, I was like the nerd of the nerds for a while there. I was very much "best in class", so much so that if my father hadn't stopped me, I would have joined an intelligence agency after graduation, when they came up to Boston to recruit me when I was top of my class in cryptology.

Telemarketing was requiring me to go beyond what I was used to. Yes, I got to the point where I had memorized the logical and rational reasons for anyone wanting to acquire our Directories but I now needed to persuade them to actually buy them. As Scott had said to me, this was not something people bought for logical reasons. It was a bit too expensive to convince someone you didn't know to buy using an email. There would have to be an element of argumentation, which I would have to initiate, which would have to lead them to making the purchase. This would require me to "step outside" my world of certainty to a world of uncertainty where this would be the norm rather than the exemption. I would have to learn to not fear uncertainty or feel insecure about it. In these cases, more knowledge did not give me a better sense of the "world as it really was" (Blyth 2010). It was, just enough knowledge to be able to persuade (Bonet et al 2001), which allowed me to create that "world" at that particular instance. Uncertainty was not something that created risks for you on the phone…it created opportunities, opportunities to persuade. It was as if there was no limit to what you could do.

My experience with the telemarketing job was my first step at stepping outside of my "model of being" until now, of my professional identity (Ibarra 1999). I was used to being a rational, logical professional that required little if any persuasion to get things done. I realized now that persuasion was present everywhere, even in my culture of nerds (Kunda 2006) the tool of persuasion was a tool that my professional discipline (Toulmin 2001) had not identified to me as one important for doing my work, but was present. The only difference, were the arguments. Up until now, the arguments I used to persuade did not involve language much. They spoke for themselves. The certainty behind my work was either there or not there.

Now, under conditions of uncertainty, language was necessary. It provided more clarity. The effective Rhetoric didn't remove uncertainty altogether but it created a "creative tension" between reality and vision that inspired individuals into action (Ecccles & Nohria 1992), in my case buying. I realized that the better I was at creating this tension the more I could excel at this new skill which would help me embrace

situations where uncertainty prevailed as these were fertile grounds with which to measure my level of this skill against others. This skill was a critical part of the knowhow I required to get things done at Tele-Magic.

The objective as Dennis had told me so often was to gain strength from uncertainty, your counterparty had to deal with it as well, and your objective was to be the one to prevail. I would learn to look to the next opportunity as a better challenge, to persuade a bit better, to get better at persuasion. I was now good at my Ethos, my appeal to my own personal credibility, through language…to the point where it was usually stronger than my logical arguments. These feelings and ideas were very strange for me then…they had not been part of my professional identity development (Ibarra 2000). Surprisingly, I had not been exposed to this way of looking at the world at my Swiss Boarding School or at University of Adelaide or at Boston University…but in a warehouse in the West side of NYC by a 19 year-old high school graduate, whose scores couldn't get him into University.

7.2.7 Selling "Face-to-Face"

Andy had told me to wear slacks and a blazer the next day, no need for a tie. This made me feel quite a bit more optimistic about my next work environment. I decided to wear a tie anyways as I felt it was always better to be a bit overdressed.
The drive to the new location on Central Park South from my apartment was less than ten minutes and Andy's driver dropped us off right in front of the building. We took the elevator to the 54th floor where a sign in the lobby read, "American Millionaires Club".

Inside we were received by Victor Esposito who, after introductions, and seeming to have met Andy before, sat us down in a conference room with shelves full of VHS videotapes. Victor was a chubby man who wore two gold Rolex watches on the same wrist and several gold chains around his neck. He had a very strong accent that seemed to be from the New Jersey shore.

"So Mr. Feinberg, the deal is that we will train Paris so that he can learn to sell our memberships and we agree to keep him employed for 12 weeks. If he sells, great, otherwise you pay us $1,000 per month for his training. Ok?", asked Victor.

"That is what we agreed, but I'm sure Paris will do well.", replied Andy.

Seeing the confused look on my face, Victor said, *"Ok, let me explain to you what we do here young man... at American Millionaires Club, we focus on helping single people achieve the American Dream...we help them find someone to spend the rest of their lives with and live happily ever after. We do this by facilitating the possible chemistry between two individuals in a both virtual way and physical way. Virtually by providing them with videotapes of possible matches, anonymous surveys and other non-intrusive methods for filtering common interests and then physically, by organizing events and activities to facilitate low-stress meeting environments. We believe that in the future most couples will meet this way..."*

It was just dawning on me that I was sitting in the offices of a dating service...I could see from the corner of my eye that Andy was avoiding eye contact with me as he pretended to listen diligently to Victor.

Victor continued, *"Every week we send out thousands of fliers to people's homes all over the tri-state area, but focusing on Manhattan. There are over 3 million single people in this city! Single people, who for the most part don't want to be single and at best, are settling for a pet today instead of a partner... that is our business opportunity...our fliers invite them to take advantage of an opportunity to have one of our Relationship Analyst's...to come to their home and make a 2.5 hour presentation to them on the American Millionaires Club. During that session, the analyst focuses on 'getting under the skin' of the individual, emotionally. You need to understand what makes this person tick and why they are single. Why they have been divorced so many times? Why do they have trouble holding a relationship? Why they might be overly jealous or control freaks*

or whatever other hang-ups they may have that keep them single? Whatever it takes for you as the analyst to... as they say, 'break the bread' with this person, you will have to do. They need to trust you enough to open their personal lives to you and feel that you can help them.

The stronger you are able to connect with them the more they will share with you. The more you know about them, the more you will be able to play that to your advantage ...eventually affecting their buying decision and ultimately persuading them to join the Club. That is what you do during the second hour of the session. You discuss all the advantages of the Club as well as show them a short marketing video. We will train you to understand each of the components of the Club as well as how to sell them."

"Once you have explained everything, you now have the last 30 minutes to close the deal. You need to get them to give you their credit card number so that you can call it into our offices by phone and charge them the $1,500 first year membership fee. You need to understand that if you leave that home or apartment without the credit card payment, you will never get it. Once you leave that door the individual will never agree to this again. This is a pure high value impulse purchase that you have 150 minutes to deliver. Each day you will go out to three different addresses that we will provide you. Your commission is $250 dollars per yearly membership that you sell. Two a day can make you very rich! Do you understand how much money this could add up to?"

Victor now looked at me in the eyes and said, *"any questions, son?If not, then here is the material for you to take home and read and we will see you at 8:30am tomorrow morning for training and you will probably go to your first session in the afternoon."*

At this point, Andy picked up the material and said, *"Thanks Victor, Paris will see you in the morning..."* and we both got up and shook hands. This was the first time that Victor had smiled and we could see his large gold tooth. Andy and I went down the elevator without saying a word. Outside, Andy suggested we have a coffee at the nearby Drake Hotel.

When Andy sat down at the coffee shop I asked him, *"Andy, I have busted my ass for you at Tele-Magic but do you really think I can spend 12 weeks working at a dating service company? What could I gain from this? What about the ethical considerations of fooling single people into joining this sort of a sham? I mean did you see Victor? I wouldn't buy a used car from that guy."* I could see Andy controlling his laughter.

Andy composed himself, *"Paris, I know what you are thinking but believe me I know what I am doing...Do you really think this is such a sham? I seriously believe that Victor is right and that a big percentage of people will get to know each other virtually in the future before they go out on dates and that the chances of getting a 'right fit' are probably higher this way...but there is nothing unethical about selling to people something that they need...or at a minimum might make use of...how many times do you think that in financial services we sell to a client something that he doesn't need or may actually lose money on...believe me there is nothing unethical about this. What this experience will give you strikes at the heart of what doing business is all about. It is being able to engage a potential client so that you connect with him or her in the closest possible way... and then have the ability to leverage that position you have now established... to your advantage... in pursuit of closing a sale. Few people are able to do this effectively and that is what separates the 'men from the boys' in business."*

"Paris, you have learned to do this over the phone...now you need to go for the real deal...which is being able to do this in person...don't lose this opportunity. I had to learn to do this over many years and learned the hard way...you are getting a 20 million dollar education in 6 months...believe me."

"Andy, I 'm sorry I don't think I can do this. Let me think about it overnight."

"You decide big guy...if you don't, I'm sorry too, because there is no job for you in my firm...", he replied as he asked for the check and gave me the material from the Club.

We both shook hands as he got into his limousine and I started my walk back to my apartment.

That whole afternoon I struggled with what to do. I had called my family who were shocked at what I had gotten myself into having left a comfortable job in Boston for this adventure in NYC and was now faced with the possibility of being forced into doing something that I felt was revolting, at best. My father in particular was very upset by this all and wondered why I hadn't enquired before about this whole training program idea. I called Dennis from Tele-Magic that afternoon and we had dinner. I told him all about my meeting today and while he was initially very surprised. He later said to me that he thought it was an amazing opportunity that he would love to have himself.

"Paris, you are now going into the 'lion's den'… face to face with humanity…where you need to get close to it…but not too close…so that you can manage to take a step back at one point and strike…it was similar at Tele-Magic…but you could hide behind the phone…in a way, humanity wasn't 'in your face'…this is the ultimate test. Go for it!"
While Dennis seemed jealous at the opportunity I had to do this, he seemed genuinely happy for me and did nothing but encourage me that night to stay the course.

I took Dennis' advice and showed up at the Club at 8:30 the next morning. I purposely didn't tell Andy, I wanted him to find out on his own. I was still feeling that he had tricked me into this whole thing but I was not a quitter… and Dennis' comments had made a lot of sense.

That morning I reviewed all the Club installations and material with a couple of also recently hired relationship Analysts. These guys were much older than me and seemed like they could use the Club services themselves. At 11 am I received my first appointment, it was for 2 pm on the Upper East Side. Her name was Dorothy Legrand, age 67, ex-actress and originally from Santa Barbara, California.

I spent the last few hours before the appointment practicing my script. At 2 pm, I arrived at her apartment on 5th Avenue and 75th street near the Metropolitan Museum. The doorman was expecting me. I was very nervous as I went up the elevator. Dorothy received me very graciously, wearing an elegant white dress. For about 20 minutes we spoke about New York and how being both Californians, coming here had been so different. It was taking me a while to move the conversation over to her personal life, but eventually I did because I realized I was already 40 min into my meeting. She started explaining to me how she had been married three times and how being in the entertainment business in Hollywood for many years had made it difficult to keep relationships. Now she was no longer in the "prime" of her life so finding a soul mate to spend the rest of her life with was proving difficult, as she was particular about whom she wanted to meet. Unfortunately while she had a very expensive apartment, she had not done well with her investments and was almost broke living off her pension, she told me. I could see that she seemed to be opening up to me and there seemed to be a connection between us but the more she spoke, the more I felt sorry for this little old lady and the less likely I saw myself "selling" her the Club.

Dorothy made tea for both of us and brought out some great chocolate chip cookies that she said she had baked herself. At one point, about 90 minutes into the conversation she said to me, *"so tell me young man, do you honestly think the American Millionaires Club might be for me?"* I now sat up on the couch, where I had made myself comfortable as she had told me all about her entire life of entertainment in Hollywood for the last 40 years, and began explaining the intricacies of the Club. The more I talked about it, the more I remembered Victor, his Rolex's and his gold tooth. I thought to myself, "whose side am I on?"

Finally I said, *"Dorothy, I apologize, but you seem like a lovely lady and I don't think this Club is for you, really. It is $1,500 for a one year membership."*

At that Dorothy's eyes opened wide and she replied, "$1,500 dollars per year…with no guarantees?"

"That's right Dorothy, I'm sorry to have wasted your time…", I replied.

She politely saw me out and gave me her phone number in case I wanted to stop by for tea some other time. A soon as I got down the street I went to pay phone and as agreed and called Victor. "No sale", I said. Victor replied, "no problem buddy, better luck next time, see you tomorrow." As I walked home I not only felt I had failed miserably in selling this membership but I also felt terrible about what I was doing. It was like learning to sell faulty used cars to someone. Is this what I had gone to university for?

I called Dennis from my apartment that afternoon and convinced him to have dinner with me that evening again. I told him about my session with Dorothy and that I wasn't sure I would be able to handle three sessions of these a day. I told him I didn't think I was cut out for this type of heavy-handed selling. He looked at me in the eyes and said,

"Paris, Dorothy's apartment is worth over $3 million, with monthly maintenance fees of well over $2,000 per month probably. She is not broke or living off of her pension. She is 67 and it wont be easy for her to find a partner who isn't just interested in her money, so she has the need for something like the Club where she can screen potential dates. I think she could have been the perfect sale. I'm sorry to say this, friend… but I think the little lady 'played you like a piano' ".

"You need to forget about thinking about Victor, and the Rolex's and the gold tooth. Do you think you are always going to be proud of the people you work with? Sure there is a stigma around the idea of a dating service, just like there would be if you were selling condoms or were in the funeral business…but it is a legitimate business. It caters to a need, right? The Club is not a sham. They have the videotapes and theparties. Most people blow more than $1,500 a year dating strangers and looking for love in all the wrong places…."

I felt like an idiot after talking to Dennis. This guy was 19 and was able to figure out Dorothy better than I had. She really had "played me like a piano". Part of me felt like I was correct in feeling that this was all too repulsive for me but then part of me felt I still had a lot to learn in life and business and I was learning, a lot everyday.

The next day I did not have my first appointment until 10am. It was in the offices of an investment banker at Merrill Lynch, downtown. David Rubin, age 47 was a managing director in the mergers & acquisitions department. He greeted me in the reception area and brought me to his corner office where his desk was covered with computer screens. Soon, he said to me, *"Aren't you a little young for a relationship analyst?"*

I quickly composed myself and responded, *"Actually I'm a senior analyst and have one of the best records at matching people…".* I couldn't believe I had just said that.

Soon David was off telling me about his love life since he had left College, 25 years ago. Three marriages, 5 kids and three live-in girlfriends later, he was still looking for love but wanted to try a different approach. After almost 2 hours of him rambling about himself and his life, I explained to him about the Club and the many advantages to membership.

"Wait, let me get this straight…you expect me to pay you so that you can get me a date?" As I nodded, he continued, *"I mean…do you think I have trouble dating? Son, I have a busy day so let's continue another day and you can tell me more about this thing…ok? But lets get something straight for next time…I am the one that can help your Club…do you know how many women would die to date a guy like me?…you would have more members if I was in your database…if you think about this, it could be a win-win for both of us…got it?"*

"Sure, I understand… ", I responded, feeling a bit sick, and made my way out. I was feeling pretty down now so decided to take up Scott, the owner of Tele-Magic, on his

invitation to drop by for lunch anytime. I made my way down to Tele-Magic and Scott and I had lunch nearby. I told him about the Club and in particular about my meeting with Rubin today.

"Paris, rule #1, make sure the client is a real buyer...that he has a need! Or that you feel you can influence him enough to create this need. This guy was none of the above. You should have realized this halfway into his egocentric description of his love life. Don't worry it happens all the time."

I rushed back to the Club for my 2:30pm appointment. This week Victor wanted me to only have 2 appointments a day. My appointment was with Julie Sullivan, a 45-year old advertising executive, recently divorced, mother of 4, originally from Nebraska. We met at a coffee shop near her office. She immediately started telling me her story. It was a real drama. She had suffered breast cancer for the last 4 years during which time her husband had left her for their good looking, nanny from El Salvador. She explained to me how while she worked all day, he was not really studying for his medical examination back at the house but was having sex with the nanny. She felt that she had been too naïve many times with people in her life who had ended up taking advantage of her.

For 90 minutes I thought at any moment now she would start to cry and then when she paused I found my opportunity to start describing the Club. I could see that she listened carefully to my script but 30 minutes into it she said, *"Do you really think a smart woman like me is going to fall for this kind of sham? I mean, you're a nice guy, you probably have nothing to do with this and are just looking for your commission but do you really believe any body with half a brain will fall for this? I mean would you? Tell me, would you???"*

Wow, I thought to myself, this woman is no fool, she actually thinks like me. I started formulating my arguments with her but it was no use. She would actually answer back the way I would, I thought, one by one. She did not believe this Club for a minute. She

seemed very much just like me, objective, mathematically minded and made it clear to me that she didn't believe in this social match-making stuff. We finished our third coffee and agreed to stay in touch after exchanging phone numbers. Initially I thought I had made a friend and then realized that while she hadn't played me like a piano, I had still not given it my best and would probably never want to see her again. She probably could have been a sale...if I had believed this stuff myself and didn't feel sorry for her while trying to sell to her. I had to find a way to separate my feelings for these people from my ability to persuade them to buy the membership.

I went home very depressed that afternoon. I decided to not call Dennis or Scott, and even less Andy. I felt I needed to figure this out on my own. I realized that all these guys were right in their arguments but there was one thing they hadn't considered...me. I just was not the sort of person that could do this. I couldn't do it professionally and I felt I could do it less, emotionally.

Tele-Magic had been tough for me but I was able to hide behind the phone then. Here I could not hide who I was in front of these people. They could quickly see that I did not think this way and my arguments were not persuasive to them because they could see me... unlike over the phone where I was able to 'hold my nose' if I felt that I was selling too hard. There was not only a tremendous level of uncertainty involved in this work, something I wasn't used to but had had experienced in Tele-Magic... but there was a level of argumentation that was outside of the type I was used to and that showed in my face. I could not fake it here and my arguments were not good enough to make the sale, as they were not backed up by me as a person in this face-to-face confrontation. As Dennis had said, I had to be able to stand outside looking in, as I had in Tele-Magic. I was now in the heart of the 'lion's den', I was deep inside the humanity of these people, but could not separate myself from them... in making the sale.

After speaking to my father that evening, who again, strongly advised me to go back to Boston or some other technology city and look for a job in programming, I called up Andy. Andy was expecting my call, Victor had told him about my three failures.

He was very polite and said, "*Paris, everyone needs to find out who they are in this world professionally. You think you know who you are because of the conditioning you have received academically. They don't prepare you for the real world there. They don't care. It is not their job. I was there once and I went to the best University in the world but I found out the hard way that the world is different and not as clear-cut as I thought. Take the weekend to relax and let Victor know on Monday what you want to do. No matter what you decide we will always be friends…believe me.*"

"*Andy, I have made up my mind…I can't do this …let it go…I feel bad enough*", I replied.

"*Let Victor know Monday, have a good weekend*", he answered back as he hung up the phone.

The next day I felt great. It was like having a tremendous weight off my back. I had only done three sessions but it had been emotionally exhausting. Every one of the single candidates I had met somehow had influenced me. I couldn't imagine doing three sessions a day for 12 weeks of this. Dennis and Andy were right, you would need to be able to stand outside of who you were…so that it wouldn't affect you…or you probably had to be different.

It was Wednesday and I started making some calls after I updated my CV to see if I could get any interviews while I was here in New York. I wasn't ready to give up on New York. Maybe there was work here for a programmer. I managed to get an interview for Friday at a large investment bank. The IT manager met me and was going through my CV. He asked me to explain to him the last few months and in particular my stint at raising funds for Boris' start-up software company. After talking to me for 90 minutes he said,

"*Paris, you seem to have much more potential than as just a programmer. I'm afraid that you will soon get bored on this job…why don't you explore a more commercial line of*

work, one where you can apply your new fund-raising skills rather than sticking to this technical type of work?"

He politely saw me off but made it clear that he thought I was over qualified for the job. That night I thought a lot about what he had said. I realized that I also felt different from that person that had left Boston University 2 years ago looking for a programming job. I felt more, sure of myself. Its not, that I wasn't sure of myself before. I was top of my class in math and cryptology. I was very sure of myself then but I felt surer of myself, now in a different way. "Myself" now also included dealing with other people. "Myself" before was more insular...it did not depend on other people. It was inside my world of programming. My stomach was starting to hurt as I lay in bed. It was a sign I was getting nervous. Somehow I knew what I needed to do. I had never been a quitter and Andy was quitting on me. Here was this guy, a multi-millionaire, graduate from Harvard University who could chose anyone he wanted to join his firm and he was chasing after me ...with a crazy Training Program that he had designed himself.

The next morning I called Victor and told him to expect me in the office on Monday. That day Andy left a message on my phone at home, he knew about my call to Victor. The message of his said that he was getting my office at the firm ready for 11 weeks from now.

On Monday I began what was to become the toughest 10 weeks of my life. Only twice did I not go to my three sessions per day. That added up to over 140 sessions with single New Yorkers over two and a half months. I was 24 years old but felt I had experienced 1000 years of humanity in 12 weeks.

The first two weeks or 30 sessions were the toughest. I did not sell a single membership. Andy took me out to dinner several times during this period as he could see that I was going through an emotional roller-coaster, going from depression to excitement as every session seemed to teach me a different lesson and what not to do

next time. I had several emotional breakdowns during these two weeks but somehow managed to survive as I remembered my Tele-Magic days and felt that there was certain similarity to my effort now inside the Lions Den. I felt that eventually I would prevail.

It wasn't however until, as Andy had always told that I unconsciously was able to "stand on the edge" looking in...when I stepped out ofmy way of "seeing the world" during one of those 150 minute sessions, that I made my first sale. It was as if I had started to believe in the product and for once my body language was as persuasive as my script. My pathos (Bonet et al, 2001) in these situations had finally developed. My emotional appeals to my audience were starting to work.

In week three I sold 4 memberships. Victor for the first time was starting to take notice. By week seven, I was selling one a day and by week nine, I was selling two a day. When week ten arrived I could not believe how well I was doing. I sold 12 memberships that week, two a day except for two days when I sold all three. On my last day, Victor, smiling, gave me a check for $27,500 dollars. I had forgotten that I was also going to be paid for the memberships I had sold! Not bad I thought for 3 months worth of work.

As I walked home that evening I realized how much I had changed in the last 6 months. For the first time in my life, the idea of dealing with the unknown, the uncertain, gave me strength. I was comfortable with it, there was no fear, only the objective of prevailing. I was a different person professionally. What that profession was I wasn't sure that day. I knew it wasn't running a dating service or working in one. I did know, however, that selling from now on would feel like a "walk in the park" compared to my days at the American Millionaires Club.

7.2.8 Discussion: Effective Logos, Ethos and Pathos

I did not know it at the time, but this experience that started with my developing a business plan and culminating at the end of 24 weeks with the American Millionaires Club, introduced me to a concept that I would not recognize in literary terms until 20 years later, deep into my investment banking career. From University days and well into my long investment-banking career, Rhetoric was a word that had always had negative connotations (Eccles & Nohria 1992) for me. It was not something that I associated with a profession or a skill that could be useful.

The effective use of Rhetoric (Bonet et al 2001) was now a valuable tool for me that would become a permanent part of my professional toolkit and would enable me to differentiate myself quickly from most of my quantitative peers (Kunda 2006, Toumin 2001). As I excelled in its use, it also differentiated me usually from many of my peers, as those that excel at it are not all that common. Without even really knowing what the word meant, it was now very much a part of me. I can't say it had changed me as a person. I felt that I was still the same person, at a personal level. In my personal relationships I was and continue to be still obsessed with certainty, only accepting "black" or "white" arguments, not accepting shades of grey. But professionally, I was very different now. I was able to think much more critically, accepting shades of grey, accepting ambiguity as a natural part of doing business and taking into consideration much more the contexts I found myself in ...as being critical to the type of argumentation I would need to use.

Selling face to face is unique in its ability to allow you to enhance an argument by affecting the audience's emotional response to your pitch. It did not take me long to realize that while one could be very persuasive on the phone, and it was not easy to do that, clearly when you were inside the Lions' den, face to face, there was little persuasion could not accomplish, if you were good at it. It does require however that your whole "body" and mind be part of this effort. This included everything from your facial expressions, to your body language and dress sometimes.

Mastering Pathos (Bonet et al , 2001) is a unique skill and I realized now that it could succeed with little or no Logos or logical reasoning. In the case of the American Millionaires Club it was capable of turning an intangible into a tangible. Effective Rhetoric removed ambiguity, just enough to make it seem like certainty (Blythe 2010) to many. As Andy would say, it was like selling invisible fish. This was difficult for me initially to understand. Once I did however, it changed my professionally identity (Ibarra 1999) forever.

Chapter 8 – Third Case Study: Negotiating the Meaning of Numbers. A Quant Perspective.

8.1 Introduction

8.1.1 Aims of this Study

This chapter is an exploratory study of a quantitatively trained professional whose obsession with objectivity and quantification (Porter 1995, Toulmin 2001) leads him to continuously struggle inside an organization where numbers seem continuously socially constructed (Czarniawska 1997), culminating in a professional identity change (Ibarra 2000) for the individual. The study presents the experiences of a young professional, Roberto, during the initial stages of his professional career as he makes the transition between a large consulting company to an SME and what this does to his understanding of the "meaning of numbers". While at the large consulting firm, his view of the reality that numbers represented was unquestioned. At his new company, he confronts a new reality, which is quite different. His journey is one example of how a professional whose knowhow and mentality having being conditioned by his academic training and initial work experience is put into question by his exposure to a more qualitative work environment where numbers and their meaning are being continuously negotiated. The professional's experience not only presents a predominantly socially constructed (Czarniawska 1997) view of numbers but also puts into question his initial understanding of his know-how in this field as well his professional identity (Ibarra 2000).

8.1.2 The Conditions for the Interviews

As an outside consultant to this medium sized international information technology firm, Alpha Inc., the Researcher is able to have the opportunity to study closely the employees based in their Madrid office. The senior management of the company has retained him to advise them on client management issues and how best to manage

their top clients as the firm develops. In addition, they know that the Researcher is doing his academic research on "productivity issues in knowledge intensive firms" and that he will be taking notes and doing an ethnography at the company as part of his research. Everyone in the company knows this but he rarely senses that they are conscious of this fact, as he comes and goes at his leisure. They feel at ease with his presence as he combines his investigation of client issues with the present ethnography of a recent hire. There are about 20 employees in their Madrid office. He is able to follow this consultant for a period of time and conduct several interviews with him and his superiors. Much of the research also resulted from his direct observation of employee's work. He is able to do this because as a consultant to the company he was given a desk that he could use as he pleased. He usually spent a good part of the day at the desk even if he was not working on work for Alpha. They were fine with that and it also allowed him the possibility to observe the employee and for him to forget about his presence there.

8.1.3 The Setting

The professional, who in his new employment is financial controller, is responsible for putting together all the financial numbers for this small company from around Europe. The Researcher follows him through many meetings and encounters with different people responsible for delivering these numbers. The study also includes interviews with some of his colleagues and in particular with the CEO who is the main recipient of the numbers, which are then used by the CEO to develop strategies for the company.

Alpha is your typical software company that makes products as well as provides services to third party financial institutions, in particular banks. They focus mainly on private banking software for private banks that manage money for high net worth individuals. The software helps banks manage their clients better as well as recommend better investment portfolios for their clients. It is a combination of client relationship management (CRM) software and portfolio optimization software. It is a

very competitive sector with many medium sized companies competing for few orders. It is a niche business where many companies go out of business every year and most companies are medium sized.

Alpha has recently acquired another company, which complements its products and is based in Germany with offices in the UK and Luxembourg. This fits well with Alpha's existing locations in Spain and Switzerland. The new products enable Alpha to offer a more complete product offering and now in more countries. Alpha had grown from just over 25 employees to now over 120 employees. The main challenge for Alpha now is that the acquired company has lost money for the last 5 years and Alpha had to now cut costs and bring the entire new group to a break-even result by year-end. For this reason management had decided that it needed to hire from the outside someone to act as corporate financial controller and bring together, in a disciplined fashion, all the financials of the group for the CEO and President based in Madrid. It was important that this person be from the outside so that it was not seen as if the older smaller company was forcing cost cuts onto the new bigger one.

8.2 The Story

8.2.1 The Recruitment of Roberto

After several interviews, the CEO decided on this particular young man, Roberto, with an Engineering degree and 2 years of experience in a large global consulting company. His work at the consulting company for the last two years, involved managing the data warehousing projects for most of their big clients. This involved consolidating all the financial data for large multinationals and other big Spanish publicly quoted companies. Data consolidating was a fairly straightforward business. These companies had thousands of employees all over the world, which entered information into their systems on a daily basis, which eventually was fed to head office where it had to be consolidated for financial reporting to the Securities administration since they were quoted companies. The data issues were quite clear and there was no scope

for questioning of the numbers on the part of the consulting firm. A basic assumption was that they were correct and had only to be consolidated purely for reporting purposes. As far as the CEO was concerned, Roberto brought together a solid background with the right set of skills to get the job done.

8.2.2 Two Weeks on the Job

Roberto was now settling down in his new job. The Madrid office space consisted of three offices and one big open space where about 20 employees had small desks. The CEO and President each had offices and the third office was used as a meeting room. Everyone, including Roberto had a desk in the open space. I now picked a desk next to his, which was free. The Madrid office now had to manage the rest of the group that was spread out over four other countries. One corner of the open space was where the programmers and production people were. In another corner you had the sales people and then the rest were spread around.

That day, I decided to meet with the CEO and the President before going over to meet Roberto in order to get a better idea of what Roberto's tasks and objectives were. The CEO had described to me the new job position as critical to management as they executed this transition of the merger between the two groups. It was also critical to their ability to not lose money this year.

CEO: *"We needed someone to bring together all the financials of the group for the Board using the same type of criteria and judgment for all locations. An outsider was important for this job as we needed a level of objectivity that could not be provided by either our own people who took over the new acquisition, or the managers at the bigger target company that had lost money for the last 5 years. Roberto brings with him a solid set of skills from his Engineering background, with a 'no bullshit' approach from his experience at the global consulting firm working for Spain's biggest corporations."*

President: *"I need Roberto to quickly bring together all the facts for me so that we can steer this group into profitability within this very competitive environment."*

After a few minutes meeting with them, I walked over to my desk next to Roberto and asked him, *"How's the job?"*

Roberto: *"It's good. I have now met everyone in the different offices over the last two weeks.*

Researcher: *"Do you know what you need to get your job done?"*

Roberto: *"Well both companies used different approaches to collect financial information from the field but I have created a template for everyone to use so that we can compare 'apples with apples' and not 'apples with oranges'. I have a feeling part of the potential problem is making sure we are all speaking the same language."*

Researcher: *"Your role seems to be very important to senior management, right?"*

Roberto: *" Yeah, that's what they say and it's what makes this a challenge for me because I know how important it is for a growing company to get it's numbers right."*

Researcher: *"Isn't this a bit of a career change from consulting, though?"*

Roberto: *"Yes, it is. But you know...no offence, but I find consulting too much of a sales job. As you become more senior you have to do more selling with the client. I find that part of the work less interesting and I didn't feel that I wanted to make a living that way. I like more "concrete" work like accounting and dealing with numbers then dealing so much with selling to people."*

I then some spent time with Roberto as he showed me the template, that he was using for getting all the locations to report their numbers. He explained to me,
"There are two main financial challenges, for a company this size. One is your level of sales, because if they don't cover your level of costs, then you make a loss at the end of

the year. The Spanish company had managed to break-even over the last 3 years but the German company had lost money for the last 5 years. That is why, they had been acquired so reasonably, by the Spanish group. This was however, risky because unless they could get the whole group to break-even or make a profit, the German company's losses could end up sinking the whole group. This was very much on the mind of the President".

The other financial challenge, he explained to me (I pretended ignorance), which was even more important, was cash flow.

"Cash flow is important because costs have to be paid every month and usually sales don't come in every month. A bank may acquire Alpha's products and pay for them over a two-year period, with the first payment within 90 days. In addition, any services rendered by Alpha to the Bank are usually paid within 60 days. This makes the job of "juggling" numbers critical to making sure that you have enough money each month to pay for the bills. Not only do you need to organize client payments appropriately if you can, but you must be able to accurately project future sales otherwise you could have a big problem. The goal is to have a good conversion rate on projects. That is, that your probability to convert pitches or presentations into proposals that were then accepted, was high. The sales people could spend months chasing after a client in order to get a sale. We need to convert these efforts into sales as quickly as possible".

Roberto was glad that he wasn't on the sales side because he wasn't comfortable in situations where so much was out of his control. He went on,

"It's not that I don't feel that sales work isn't important. I know it is, but we have good products and good reference clients so it is a matter of getting visibility. We need to get in front of clients more. The biggest challenge for a company this size is in managing your numbers once you get the sales because without the right planning you can go under."

Interpretation

The first thing you notice from this narrative is that everyone, including the CEO, the President and Roberto, describe Roberto's role in very unambiguous terms with a high level of certainty with respect to Roberto's future tasks and objectives. Ironically, in the definition of the role one does not get the impression that this company is highly knowledge intensive firm (KIF) where much of the work and knowledge is socially constructed.

Roberto goes to great lengths to distance himself from the world of consulting and selling, grounding himself firmly in a world where the "scientific arrangement" of numbers is critical to whether the firm succeeds or not. While he does not go as far as putting "down" the role of sales, he feels that with the right products and reference clients, "it's just a matter of getting in front of clients" in order to close sales. This way Roberto defines himself initially almost more by what he is not, than by what he is (Kunda 2002). He resembles what Snow (1969) described as "two cultures", where he sees himself as part of the scientific, quantitative (Porter 1995) culture with a set of beliefs and shared meanings putting others is a less favorable light who are predominantly engaged in "selling".

The President of Alpha sees in Roberto a solid, quantitative, "no bullshit" type of individual that is just what the company needs. Roberto's professional identity is not only felt by himself, as being this way but it is also the perception others have of him from Roberto's academic and professional experience.

The narrative he presents sets the stage for the importance that he gives to the role that numbers play in the firm and how prepared he is to deal with them.

8.2.3 Roberto's First Management Committee Meeting

Every two weeks, Alpha had a management committee meeting where the overall management of the company was discussed. This included the CEO, the German CFO, Roberto, each of the 5 Sales managers, the Production head and the Services head. Regularly, I was asked to attend, especially when there was a lot of discussion around clients.

This was Roberto's first meeting and he had prepared a spreadsheet, at the request of the CEO, for the meeting that he had distributed to everyone.

Three Month Sales and Profit/Loss Projections

Country	March	April	May
Spain	100	0	100
UK	50	50	0
Lux	10	0	10
Switzerland	5	100	10
Germany	200	300	350
Total Sales	**365**	**450**	**470**
Costs	350	350	380
Profits	**15**	**100**	**90**

The CEO began the meeting with, "Are we ready to begin?"

You could hear everyone say yes through the speakerphone. Alpha used Skype (a telephone over the Internet system) for all the internationals calls that allowed them to call for free over the internet. The quality of the sound was not always the greatest

and sometimes you could barely hear the party on the other side when 5 countries were connected on one call, but since these calls could take hours, sometimes it was the only way they could afford it. Skype had made it possible over the last few months to connect everyone by phone as often as they wanted. It had substantially increased the level of communication between employees in the different offices.

CEO (Peter): "*I have to say that the numbers look pretty good, Roberto...I hope we can keep this up...*" There is a silence for a few seconds.

German CFO (Juergen): "*Peter, I'm not sure where the 200 for Germany in March are coming from...I told Roberto that this deal was not sure....*"

Roberto, interrupts: "*I'm sorry but you said it was 200. We discussed this last week during...*"

CEO interrupts: "*Juergen, What is the right number?*"

Juergen: "*It is 125 which is in line with the projections for last month...We may get the additional 75 next month but its not sure yet...*"

Roberto: "*But Juergen, you told me 200 last week...*"

Juergen: "*Roberto, you asked me 5 days ago what the number was...it was 200 back then...things change quickly, young man...it is not your fault. I only knew two days ago of this change.*"

Roberto looks visibly affected and remains silent.

CEO: "*No problem Roberto, the main concern I have is what does this do to our cash flow this month? Ok let's move along*" He then turns to the Spanish Sales manager sitting with them, "*What about Spain?*"

Spanish Sales Manager(Juan): *"Well I'm afraid that we have a similar situation in Spain, the Telecom deal we were expecting to close fell through yesterday…"*

Roberto *interrupts in an inpatient voice: "Yesterday?"*

Juan *continues: "This is actually good news because they are now actually thinking that this project will become much bigger and we will have a better shot at it because they feel that they owe us now…because of this delay"*

CEO: *"Ok, so what is March for Spain?"*

Juan: *"It is about 40"*

CEO: *"What do you mean, about 40? What is it?"*

Juan: *"I told Roberto that without this Telecom order it would be 35."*

Roberto looks stunned but does not open his mouth.

The CEO looks at Roberto and says: "Well, Roberto it is probably a good idea for you to touch base with everyone later today and prepare this template again for us. All right what is next on the agenda?"

During the rest of the meeting it was clear that Roberto was visibly affected. For the remaining 30 minutes he took notes feverishly trying to look like he was fully engaged in the discussions and that the sales part of the meeting had not affected him. I could tell that he had very much looked forward to this first meeting and somehow his whole "template" strategy of comparing "apples with apples" had not started the way he had hoped it would.

Later, that afternoon, I visited Roberto at his desk again. He showed me an email from Juergen.

TO: Roberto

FROM: Juergen

Roberto,

The March figure for Germany will probably be 125 but just to play it safe put 75 in your template. I need to squeeze our sales people harder.

Regards,

Juergen

Roberto looked at me and said, "Can you believe this? Why can't he just give me the number 75 before the meeting? And in the meeting he goes from 200 to 125!"

That afternoon Roberto, called around to try to update his numbers. I could tell that he wasn't getting a lot of straight answers by the nature of his questions and the tone of his voice.

Interpretation

This narrative represents the beginning of a turning point for Roberto. For Roberto, this spreadsheet is much more like a "static" document than for everyone else. He sees it as his roadmap, his "command and control center", from which he can make decisions and create reports for the CEO. It is very much part of his quantitative culture and should be an objective reflection of the true state of affairs within the firm. As a result of going around, during the last few days and last week, "pulling" numbers from different parts of the firm, this spreadsheet was now the consolidated view of

the firm's reality for him. As he begins to see that several of its contributors now begin to backtrack, seeking to change their numbers, he is surprised to see that even the CEO finds this "normal" behavior, asking him to update the spreadsheet as soon as possible. The spreadsheet is somehow now dynamic and more like a continuous "work in progress". Roberto is not used to seeing such an important tool associated with such levels of uncertainty.

Roberto has now entered into a new Community of Practice (Lave & Wenger, 1991). One where the beliefs and the accepted behavior with respect to numbers is quite different to where he came from. He is at a disadvantage in this COP as his arguments are not only not effective, but also not accepted by the members of the team.

8.2.4 Interview with Juan (Spain Sales Head)

The following day I decided to spend some time with Juan in order to understand better the sales process in this company. Juan was an "old timer". He had been around since the beginning of the Spanish company and had worked many years before that at IBM and HP. He had good contacts in industry but somehow he had yet to take the sales of Alpha's products to a new level. The CEO had originally had big hopes for Juan but they were yet to materialize. The new hope was now, this acquisition, and how it might make our Spanish product offering more attractive to Spanish companies.

Juan sat in the open space at the far end surrounded by a couple of his junior sales and pre-sales people. I took him to the meeting room so we could speak in private.

Researcher: "So Juan, is this typical for this business that sales figures can change almost overnight?"
Juan: "Oh, you mean with respect to what I said yesterday in the Management Committee meeting?" I nodded. "Well, yes that's the nature of this business. The sales cycle is at least 6 months and then its still never sure.'

Researcher: *"But how do you survive with all the competition out there?"*

Juan: *"It's pretty simple. IT departments have a budget every year to spend on new products and services. If you have good contacts in IT departments at banks and you have reasonable products, you always have a good shot at having a piece of their budget. In this market, it's a relationship business, so you need to wine and dine them every so often and keep chasing them. Things are always changing at Banks though, so every so often budgets get cut or new projects start so you have to be flexible as a firm and stayengaged until you get your piece of the pie. You need to help the IT Directors. Their main goal in life is to get bigger and bigger budgets from the bank. It's a numbers game for them. The more interesting products I bring them, the more projects they can offer the bank and start up, the bigger budgets they get, the more likely I get a piece of their expanding budgets. Now if their budgets get smaller, I need to fight to stay in."*

Researcher: *"So you really believe what you said about the budget getting bigger and them owing you?"*

Juan: *"Yes, I do. Well, you really never know if you will get it this time but eventually you will get something if you keep chasing them. My challenge is to keep chasing them while keeping my CEO happy with my efforts and overall sales volumes. But Roberto, he's new at this. He still doesn't understand that you can't just call me a week before this meeting and get a number that will be set in stone forever. These guys from big consulting companies live in another world. We live day to day. We eat what we kill and what we should be eating, doesn't usually stay still. We can't take anything for granted."*

Researcher: *"Yes, but you need to provide some level of projections on a timely fashion. How should Roberto do this?"*

Juan: *"It's the attitude that has to change. Of course I'll provide him numbers but we're a team here. Who's side is he on? If he is trying to embarrass me with the numbers with the CEO then that's one thing. If he is going to help me get my budget for the year while*

keeping the CEO off my back, then he needs to work with me and we need to be saying the same thing. I need time to keep pushing my clients and the CEO is just interested in keeping the pressure on and maybe even questioning my approach as well as my potential clients, if the numbers don't look good. Its tough, I can't make the numbers look good and then not deliver. But I also can't say the numbers are really bad otherwise the CEO will question my work. I mean it's not easy for Roberto but he has to work the system better."

Interpretation

This narrative describes in detail the "system of persuasion" (Alvesson 2001, Monsted 2005) present in this firm. Not only is the "system" present internally with respect to numbers, where their meaning is continuously negotiated between the sales people and the CEO, but also externally between the sales people and the IT heads at the clients. The narrative focuses on the importance of numbers (Porter 1995) not only within Alpha, but in particular with respect to the nature of the business Alpha is going after. At the banks, the purchase of information technology itself seems to be driven by an internal desire to expand the size of the IT head's budget.

Juan makes it very clear that Roberto has not only entered a new COP (Lave & Wenger, 1991) but that he will have to decide which side he takes, between parties, within the COP. Roberto's reflects a different professional identity to Juan and the team. Their culture is different and Juan makes it very clear that Roberto will have to learn to adapt and become part of this new culture.

8.2.5 Interview with the CEO

I decided to interview the CEO while yesterday's Management Committee meeting was still fresh in everyone's mind. My conversation with Juan had been fruitful. It gave me a better idea of what the "sales" thinking was in this firm. I knew a lot about managing big clients and especially banks but IT departments were different. It was

interesting how there was such a strong emphasis on budgets. It seemed you measured an IT executive by the size of his spending budget. Working that system was an art and some did it better than others.

Researcher: *"Peter, please give me some of your thoughts as to the sales part of the meeting yesterday. Is this normal?"*

CEO: *"oh yeah, it's totally normal. It is a problem though because the President and I are starting to get nervous about our results. The German company lost 1 million Euros last year and if we are unable to cut costs and increase sales at the same time, we will have a situation that will drag both companies into the ground. Our projections need to be very realistic otherwise we will be planning using faulty data. Now, I know that you can't predict the future, but I also know the "game" that the sales people always play. They always think that they can delay bad news and that eventually things will work out. It usually doesn't work that way. The IT Directors have no loyalty. Our sales guys don't see it always the same way. They think that if the IT Directors get their numbers right, then they, will surely get a piece of those numbers."*

Researcher: *"So it all about sales at the end of the day?"*

CEO: *"Well not exactly, and that's what makes it even worse. Many times in order to get sales, our sales guys promise too much or discount too much. What happens is that when the IT Directors get their budgets, they turn around and squeeze our guys down to the bone. So sometimes we are better off not getting the sale. Last year we got a sale for a bank in Holland that took us 8 months to close. We had spent a fortune trying to make the sale, flying people in from all over, making pitches, doing demos. When we finally closed it and were paid the 250,000 Euros. Everyone was very happy. I calculated we had spent 65,000 Euros in getting the sale. Later we realized that the costs of adapting our product to their needs was going to cost us another 150,000 Euros. Finally after 4 months into the delivery of the product, the client was upset because we had promised too much on functionality and failed to deliver but we were still losing 75,000 Euros on*

the project. Do you know what that does to morale when you work like a dog getting a sale, lose money and the client is unhappy? It was a lose-lose situation. So sales are not always good. It's tough however because we have a lot of fixed costs and we need sales to keep people working and pay the bills. We just need to be careful when we price them. Not all sales are what we think they are. The numbers don't always represent what they seem to in the beginning. There are always things hidden in them."

Researcher*: "Does Roberto understand all this?"*

CEO*: "Not yet, but he'll get there. For him now, sales numbers are always good. He doesn't need to worry yet about whether they make money. He doesn't get into the meaning of those numbers. It's the head of production and services, which were hopefully part of the pricing of the deal. They are the one's that need to worry. Roberto just needs to make sure that the numbers are brought together from around the company and that we have, as close to a real time view, of what our financial condition is as a firm. Over time he will have to start questioning the production numbers as well."*

Researcher*: "Does this problem with the meaning of the numbers occur anywhere else in the company apart from sales?"*

CEO*: "I would say it occurs everywhere in a company our size. It occurs with costs of sales, producing the product, providing the services, everywhere. In particular, what it does, is create internal competition amongst ourselves, for giving 'our own numbers' a more positive meaning. Hopefully Roberto will eventually provide objectivity to this exercise."*

I left the CEO and went over to my desk near Roberto. He was busy on the telephone talking to the different sales heads updating their numbers on his spreadsheet. For two days he had worked the phones and met with different people. The CEO had asked him to provide a new set of numbers for this afternoon, two days after his first meeting. There was going to be a brief follow up management committee meeting

between Roberto, The CEO, and Juergen on the phone. I decided to go along to see how it went.

Interpretation

If there was any doubt as to the potential ambiguity of the sales and production numbers, this narrative makes this case very clearly. For the CEO, the internal negotiation of the meaning of the sales numbers is not only very normal but he now introduces another set of factors that can put into question the potential benefit of "sales numbers" themselves, to the firm. By way of a persuasive story (Alvesson 2001), he describes how a Dutch bank client, not only made the benefit of sales numbers very relative but more importantly very dependent on cost numbers. The story demonstrates clearly how actually making sales can be detrimental not only to the financial position of the firm but also play a part in lowering motivation and the overall morale of the employees.

The CEO is not concerned about Roberto being new into this process. Slowly, he will understand better how to deal with these numbers, focusing on the different, important things he needs to consider.

8.2.6 The Follow up management Committee Meeting

When Roberto walked into the room you could see he was more confident then when he had walked out of this meeting two days ago. The CEO called Juergen on the phone and the meeting began. Roberto passed us a copy of his new spreadsheet.

Three Month Sales and Profit/Loss Projections

Country	March	April	May
Spain	35	0	100
UK	50	50	0
Lux	10	0	30
Switzerland	75	100	10
Germany	75	200	350
Total Sales	**175**	**350**	**490**
Costs	350	350	380
Profits	**-105**	**0**	**110**

CEO: "Ok, let's see. So, for March we are expecting a loss of 105?

Roberto: "Yes, Peter, I have updated the numbers with each sales person and while this month looks bad, there seems to be a solid pipeline in the next two months which should get us out of the woods, right Juergen and Juan?"

Juergen: "Yes, Roberto is correct we feel that this short fall in only temporary and will be made up by May."

The CEO, looks at me and smiles, "Ok, well I suppose we will review our progress again next month. Anything else?" there is silence. "Ok, thank you gentlemen."
As Juergen hangs up and Juan leaves the room, the CEO stays with Roberto and myself and asks, "So what do you think Roberto?"

Roberto: "I think that I have a better feel for how this all works now."

CEO : *"Yeah, but now we have a serious problem in March. How are we going to make up for that shortfall? We cannot be in this situation again next month. This requires not only detailed follow up on the financial accounts to see where we are, but you also need to "push" the sales people to commit more. If they think that all we have to do is give Roberto our numbers and show up to the call, then we have lost the battle before it has even started."*

Roberto : *"Battle?"*

CEO : *"Yes, battle, Roberto, everyone of these sessions is a small battle. We need to get these people to either do things differently or take things more seriously. They are not shareholders. We are. The President and I have just spent 3 million Euros on this German company in order to save our own company. We need critical mass in order to survive in this sector but how do we do it? In growing, do we just dig ourselves deeper into a whole or do we inherit their approach and attitude? These guys have lost money for the last 5 years. It is normal to them. This has to change and you need to be part of that change. I need you on my side not theirs. I mean, don't get me wrong, today was good, they now see you as part of their team but let's not forget the forest behind the trees. The war, not the battles, we need to win the year-end profitability war. The president and I are now going to have to lend another 100,000 Euros to the company to get through the month of March. We need your help on this."*

Roberto : *"I understand. I will work more closely with them to get more sales."*

CEO: *"Ok, please see where we can cut costs this month so that we can try to lend the minimum to the company. Oh, and keep your eyes on April and May. We need to avoid being surprised when we get there. The way to change the future is not by looking at lagging indicators, that is, what we did wrong, but by looking at leading indicators, what is presently going on and what we can do to make the future what we want it to be. Speak to Paris about that (as he looks at me). He's an expert at how to manage big clients. Ok, so bring me the cash flow numbers as soon as you can. Let's talk later."*

I walked back with Roberto to his desk and invited him to have a coffee downstairs. It was already 7pm and I could see he had had a rough day.

As we sat down I said to him, "You've learned a lot in the past couple of days, huh?

Roberto: *"yeah, but I'm still not sure what I've learned. I mean it's clear that I have a better feel for how things work around here but I'm not sure what I've learned to get my job done better. I mean, it depends on what my job is." He sipped on his coffee and looked at me waiting for an answer.*

Researcher: *"We'll what do you think it is?'*

Roberto: *"I thought it was to compile information, numbers, from the other offices and do management reporting for the CEO."*

Researcher: *"Yeah, well let's see how it goes during the next few weeks."*

I didn't want to speak too much as it was him I was interested in studying. For the next couple of weeks I frequently spent time at my desk observing him in his daily activities preparing reports and talking to different people around the company. There was a management committee meeting the following week, as there was every week, but it had been uneventful. There was just a discussion of the different clients. Roberto was not involved at all, apart from providing the cash flow numbers. He had managed to cut some costs or delay some expenses so that the company borrowings were only 45,000 Euros for the month of March. There had been a mistake in the numbers that Roberto had initially provided but no one had made a big deal of it.

During the following three weeks, Roberto continued to be involved actively speaking to the different sales people and increasingly now to the production people. He was now being asked by the CEO to get involved in the pricing policy of the company. He

had to meet with the programmers and production head as well as the new products head in order to agree pricing of products before any proposal was made. This again was a new experience for Roberto as it involved quite a bit of negotiation with the different parties as well as the difficult situation of being "in the middle" again, between the CEO and them.

Interpretation

In this narrative Roberto makes his first attempt to become accepted within the COP (Lave & Wenger, 1991) of the sales people. He is now better able to provide arguments and reasoning (Bonet & Sauquet 2001) on behalf of the positions of the sales people. While it seems to play well with the sales people, the CEO reminds him of the "side" he is supposed to be on. His Rhetorical (Bonet et al, 2001) narrative regarding his position with that of the President, as shareholders, is specifically aimed at reminding Roberto that in a choice between sales people, who have always lost money, and the investment of shareholders for the survival of the company, his choice should be clear.

The most important part of this narrative involves Roberto for the first time starting to question what his job is really all about. While he admits he has learned quite a bit, he questions whether this new "know-how" has anything to do with his original job description.

8.2.7 Interview with the Production Head

I was curious about this part of the business and how it was going to affect Roberto's work in the future. Already Roberto was being pulled in different directions by senior management and sales. I met with the Production Head (Enrique) who was a close friend of the President and had been with him from the beginning at Alpha.

Researcher: *"What is the most difficult part of your job, Enrique? I mean where do you have the greatest challenges?"*

Enrique: *"I would say, making sure that I produce what the sales people are selling and being able to make it profitably at the prices they are selling it at."*

Researcher: *"You mean they might be selling software you don't have?'*

Enrique: " Ha, ha, that happens all the time. I would say that about 80% of what we sell is not 'off the shelf'. Some of it just requires some additional customization work but much of it is extensions to our product, that is in many cases dramatically different from what we have. We call this 'vapor wear' in the industry. You show the clients either a few screens in a demo or a power point presentation, and tell him that you have the product but you can't show him the real thing because it has to be 'customized' to their use. That's when you run the risk of losing money. You not only go off in a different direction that affects your current product line, but you may 'bite off more than you can chew' and lose money in building what you promised.

Researcher: *"But at least the client is happy, right"*

Enrique: *"Maybe...I mean IT departments are always looking to spend money on technology. They have IT budgets and budgets are there to be spent. IT Directors are always looking to increase their budgets the following year so they are looking for new projects. That is how you move up in IT departments by having the biggest budgets. At the same time, most banks make a lot of money and want to grow, become more productive, so they always want the latest technology. Technology is always changing as well, so it becomes a vicious circle. But much of this technology is rarely used or is replaced with new products the following year. It's tough to find a client happy with their technology and content with keeping their existing systems.*

"At the same time, our sales people help 'feed' this cycle by offering the next 'flavor of the month' that could be related to our existing product line. This can have important repercussions for a firm of our size. We don't have enormous production departments and we need to prioritize. That is why you need such a strong alignment between sales, production and accounting for a firm our size to survive."

Interpretation

This narrative ties all the pieces together in terms of the level of ambiguity and the negotiated meaning of numbers (Porter 1995) between sales people, production people, management and even the client. The selling is not only part of a large "system of persuasion" (Monsted 2005, Alvesson 2001) that involves the client, as well as the client himself internally at the bank, but even the product being sold can sometimes be classified as the result of a persuasive (Bonet et al, 2001) sale of "vapor wear", i.e. something that does not exist.

In addition, we learn that even if the product is sold to the client and installed, much of this technology is rarely used and is just part of this spiral of expenditure by banks in order to be on the cutting edge of technology which is supposed to have a direct impact on productivity improvements.

8.2.8 Roberto in his 5th week at Alpha

After observing him now for 3 weeks, I decided to interview him again and see how he was adapting to Alpha. When I saw that he wasn't very busy, I asked him to join me in the meeting room.

***Researcher**: "So, Roberto, what can you tell me about your 5th week here? How does it feel?*

Roberto: "Are you doing your ethnography on me this time or this for your consulting work or what?"

Researcher: "ha, ha, all of the above."

Roberto: "ok, well, I am starting to enjoy my work much more now. Initially it was very confusing coming from my background but I'm starting to feel like I'm part of the team now."

Researcher: "What would say, is the most important thing that you have learned since you arrived at Alpha?"

Roberto: "I would have to say that it is my relationship with this company's accounting and numbers"

Researcher: "Numbers? What do you mean exactly?"

Roberto: "I was an expert with numbers. People respected me for that. I knew what I knew. At University I was the best in my calculus class and then in industrial design. Those types of skills are less important here."

Researcher: "Do you like this change in your work?"

Roberto: "It's hard to tell but I'm starting to get the feeling that I had in the consulting firm when I started spending more time with clients, that I was selling. It makes me uncomfortable, as I like having some level of control in what I am doing, and here your control seems to be based on how effectively you negotiate with people within the firm. That's a skill I have yet to develop well, but at least I'm starting to feel accepted by them."

"In consulting, I was struggling with selling to clients, now I am having to sell internally, its like diplomacy in a way. I'm not used to this and sometimes I feel confused, numbers here can mean everything or nothing. I'm not sure if I should be focusing less on the numbers and stop being so strict, but that is what I am good at. But somedays I feel very insecure, as I don't know what I am good at anymore. Its like I have lost my compass, but at the same time it feels good as I feel that my mind is opening up and I am learning new skills."

The following three weeks continued to be fairly uneventful until another acquisition opportunity appeared and the CEO asked Roberto to help in putting together all the company financial information. In addition, Roberto was to help in doing the due diligence of the company to be acquired. The due diligence process involved investigating all their accounts, clients, project pipeline, assets, contracts signed as well as any other matters that were either being valued or could be a liability for Alpha as the new owner.

Roberto was asked to help go through the accounting, help value the company and assist in the structuring of the contract. It was not normal for a company the size of Alpha to be involved in two acquisitions within six months but the opportunities had appeared and the President felt that he had to grow his way out of the current situation. That was quite normal for medium sized companies that needed critical mass in order to achieve profitability.

The new company would be merged into Alpha. That meant that the shareholders of the new company would receive shares of the new larger Alpha. No money would be paid to the existing shareholders of the company to be acquired. It was based in the UK and had 15 employees, 10 of which were based in London and 5 in Luxembourg. It also had a private banking product and as a company it was making a small profit. It was perceived to be a good fit with Alpha by both sides. Both companies would now have to merge their offices and people in each location.

Roberto was very excited about this acquisition but at the same time he seemed a bit worried. He knew the President was depending on him to understand well the new company accounts. He needed to understand what was real and what was not. They were buying products, production people, sales people and an additional couple of managers. Roberto clearly saw the challenges in valuing this and trying to predict how this would help or not Alpha grow. As I watched him and listened to him on the phone, I could see that he was now pushing himself along. He was "talking their talk" and "walking their walk" and both the CEO and the President seemed very much counting on his support for this acquisition. He was to bring together all the different pieces of information from around the company and act as a 'liaison' between all the parties with contracts and spreadsheets being distributed to everyone by him. He was coordinating the lawyers and the management positions on both sides as they went through the due diligence process hoping to finalize the transaction within the next few weeks.

For six weeks the due diligence process continued and meanwhile things were not getting better at Alpha. The sales people did not meet their April numbers so there was an additional loss for April. Somehow Roberto didn't seem as bothered as the President was because he was starting to believe that the May numbers would come through as all the sales people insisted on. He was also quite fixated on this new acquisition and his additional responsibility. It seemed like a good deal, the company sales would grow by 30% and the staff by only about 10%. That seemed to make sense if they could continue to count on the new company's sales.

Unfortunately, I had to travel for the following two weeks and it seemed I would miss the signing of the new deal.

Interpretation

This narrative leaves no doubt that Roberto's relationship with numbers has changed. While numbers were originally in his mind something static, not to be questioned,

today "numbers mean everything and numbers mean nothing" to him. Roberto has come to realize that this experience at Alpha with numbers has impacted his own professional identity (Ibarra 2000). He now begins to see himself more as a "diplomat" with much of his work involving the negotiation of the meaning of numbers with different parties across the firm. His peers now see a different expertise in his work. It is no longer the same one his peers saw in him at the consulting firm. This change in expertise begins to change his own view of his professional identity (Ibarra 2000).

8.2.9 The Post Acquisition

On my return, I went straight into the office of the CEO.

Researcher: *"So Peter, How did everything go? The deal got done right?"*

CEO: *"yeah, it's done all right. It was a nightmare at the last minute, however, but it's now over and we are now going to need your help more than ever on client management. You heard about Roberto?"*

Researcher: *"No, what about Roberto?"*

CEO: *"This was amazing. After three days of non-stop negotiations and final due diligence we sign the deal on Friday and we all go home and celebrate. That Sunday, I get a call from Juergen telling me that we had made a mistake in the share splits with the new partners. We had given them too many shares of Alpha. It seems that in the analysis of the merger, Roberto forgot to take into account the fact that while Alpha owned 100% of our Swiss subsidiary, the Swiss subsidiary owned 10% of Alpha itself. This meant that we had ended up giving the new guys 10% more shares in Alpha than we should have. I immediately called them and they played tough saying that this was a different deal because these were the numbers that Roberto had given to all of us from the beginning. They strung us out for two days saying that they would not agree and*

that the deal was signed. The President was a wreck those two days. Finally on the third day they all came back to Madrid and we signed the deal again with the right numbers."

Researcher*: "Roberto must have been a mess…"*

CEO*: "Oh, yeah, He was in a panic for three days. He kept apologizing to everyone. He spent those entire three days, day and night almost, in the office going through all the contracts and due diligence material making sure that he had not missed anything else. It was a nightmare for all of us."*

I went over to Roberto's desk and said hello. He told me all about the episode again. He was exhausted. Today was Friday and it had only ended a couple of days ago with the re-signing. The last two weeks had been a rollercoaster for him he told me. He felt very bad but also he felt he had learned a lot. Everyone had supported him through the whole ordeal.

On my way out that afternoon, I saw the President in his office and stopped by.

Researcher*: "Miguel, Congratulations! I heard it was a real roller coaster of a week."*

President*: "It was, but thank God it is all over. Now comes the hard part work. We need to manage this new group quickly and we are going to need your help more than ever. Can we meet tomorrow to start going through the big accounts?"*

Researcher*: "Sure, any time."*

President: "Oh, by the way, I'm going to need your help in finding a good financial controller. I want to replace Roberto."

Researcher*: "oh really?"*

President: "Yes, I mean he is a good guy but lately he has been making small mistakes and what happened on this deal is just totally unacceptable. We need someone very solid for this job. We cannot afford these sorts of mistakes. How can I trust his numbers now? And now the stakes will get bigger and bigger. Yeah, we will see if he fits somewhere else in the organization, otherwise he will have to go but I need a good financial controller as soon as possible. Find me a solid accountant with good math skills if you can…see if you can find one by next week. Good to see you. I have to go, bye."

8.2.10 Conclusion

In the analysis of the work environment at Alpha, narratives form a critical element of the practice. Through coherent narratives people perform their work internally. Through narratives, management, sales people and production people demonstrate their mastery of the subjects that confront them. The interviews of the different actors in Alpha provide rich narratives highlighting the roles and power of the interviewer and interviewee (Czarniawska 2002). To the outsider, talking about work is perhaps expected but how instrumental it is in doing this work at Alpha provides a different perspective on this type of work (Orr 1996).

While the nature of the work seems 'defined' with management making unilateral decisions, the actual practice is very much based on a continuous negotiation of meaning and positions on behalf of the different parties. It is this "system of persuasion" (Alvesson 2001, Monsted 2005) that leads to a perception of leadership as constituted power on the basis of negotiation. Everyone in the management committee meeting is continuously negotiating their position with the CEO, who holds the reigns of the firm through a negotiation with the different parties.

Most of the actors in Alpha make use of the four main tools of argumentation: fact, logic, metaphor and story. McCloskey (1990) reminds us that, as in many other fields of enquiry, Economics and business use these tools frequently. At Alpha, metaphor and story are very apparent in the interviews and it is this use of language in the form

of metaphors and stories, in order to develop compelling arguments on behalf of an objective, that make the senior members of the management team so credible. On one occasion, the CEO argues that even tangible benefits, like selling, can be influenced by "subjective decisions" in the accounting (McCloskey 1990).

At Alpha, Roberto begins to "understand" how work is done through his situated practice (Lave & Wenger 1991) and in particular, when what he considers to be otherwise transparent activity, becomes in some way problematic (Suchman 1987). Much of his situated practice comes from the piecing together of an understanding of the situation and of possible courses of action as Roberto tries to make sense (Weick 1995) and reflects (Schon 1983) on the possible options he has in order to do what the CEO wants of him. As he makes sense of the internal "system", he takes the positions of the different parties, in order to get the information he needs to do his work.

At Alpha the spreadsheet used in the management meetings is a social structure, a genre (Yates & Orlikowski 1992) that is interpreted and enacted through the management team's communicative practices. It is the "battleground", as the CEO puts it, where sales people, production people and management defend their particular view of the reality of their numbers. A technology practice-lens approach (Orlikowski 2000) shows us how this spreadsheet has been institutionalized within the management team. It has become an integral part of their practice and influences their practice. It has become part of their culture.

While for this community of practice (Lave & Wenger 1991, Brown & Duguid 2000), numbers are not of a primary focus, they are only artifacts that are socially constructed for particular situations, for Roberto numbers mean something quite different. Numbers have had an influence on his professional career. They have been instrumental in the forming of his professional identity (Ibarra 2000, Alvesson 2001) as, what one is capable of doing (or expected to be able to do), frames who one "is"

and this is very much the case with Roberto whose adaptation is difficult as a result of this "strong culture" (Kunda 2006).

Initially, Roberto joins Alpha thinking that he is moving back to a job position that will be more "transparent". A position as financial controller where he can put to use his interest in dealing with numbers and be less exposed to "selling", which was an increasingly larger requirement of his job as he moved up as a consultant at his last employer. He wanted to be more in "control" of his work. At Alpha during the initial weeks he quickly realizes that the "role" of numbers in his new job is nothing like he expected. Not only can numbers be questioned all the time, but even the nature of their creation or how they come to exist is also socially constructed (Czarniawska 1997). This social construction however, in itself, can mean individually constructed, within the community of practice, or culture whose beliefs include to continuously question numbers.

What is also interesting for Roberto is how he begins to see that while numbers are questioned all the time, they are very important. They "mean nothing and mean everything", he states. They are the reason for the existence of Alpha as it is the IT budgets at Banks that drive this business and they are what eventually decides whether these companies survive. Roberto goes through a transition of his professional identity (Ibarra 2000, Pratt 2000) where he feels he is beginning to put "numbers in perspective" and starts having a sense of community with the "actors" in Alpha. In his case, identity starts to become a motive in itself, as he tries to arrive at a correspondence between his view of himself and the view others are communicating.

Roberto's story resembles a Greek tragedy for many that know him. No one, and especially himself would have imagined that he would have to leave Alpha the way he did. It is the story of how an individual, whose obsession with objectivity and the sacredness of numbers, becomes immersed in a culture where the meaning of numbers is constantly negotiated and dealing with uncertainty becomes his greatest challenge. His experience at Alpha not only puts into question his quantitative

mentality and knowhow but also has a dramatic effect on his professional identity, so much so that the President no longer sees him as the Quant, he once was.

Two years later, at Alpha, they continue to miss their sales targets and the CEO continues to look for the next acquisition. Juergen has long since taken over Roberto's financial controller responsibility, because the recession made hiring someone not feasible, and Roberto is now working as a successful consultant in sales, for a well-known strategic consulting firm in Dubai.

Chapter 9 - Fourth Case Study: A Quant Identity Crisis from the 2008 Economic Crisis

9.1 Introduction

9.1.1 Aims of this Study

This chapter is an exploratory study of managerial identity work, based on an in-depth case study of a mathematically minded professional (Toulmin 2001) and the organizational contexts in which he has worked since University, from an Engineering degree to a career in banking. The professional, who will be named Timothy to protect his identity, who is used to seeing the world through the lens of mathematical models and has always had a keen obsession with objectivity, now begins to experience the other side of Economics and financial organizations, one which is much more subjective (McCloskey 1998) and socially constructed (Czarniawska 1997). His professional journey is nothing like what he had originally imagined it to be as his identity development goes through various stages that eventually culminate in a crisis of confidence in his work as well as in his professional identity. His journey is one example of how a professional becomes immersed into today's "culture of greed" within the world of financial markets, and the identity struggles this creates for him as he is forced to continuously negotiate meaning and direction in his professional life.

9.1.2 The Exceptional Conditions for the Interviews

The empirical work for the study is developed in several interviews along an 18-month period. Initial interviews focus on his academic and early years as the mechanical engineer embarks on a career in Investment banking. It is through a series of further interviews, as well as ethnographic observation during this 18-month period that the focus becomes his professional identity development. The objective is to seek meaning beyond what the individual says and does.

These interviews were made possible because the researcher is an outside consultant to a London based software company, which shares offices with a Fund Management firm (which will be named, Sullivan & Sullivan), and is able to have the opportunity to study closely this professional that shares an office with him. The professional, Timothy, knows that the researcher is doing his academic research on "productivity issues in knowledge intensive firms" and that he will be taking notes and doing an ethnography while researching his type of work. Initially he doesn't quite see the fit between his professional trajectory, as well as his present situation, with the Researcher's interest in "productivity issues". This makes the Researcher's work all the more easier as Timothy seems very open to explore his experiences with the Researcher without the possible bias of a predetermined agenda on his part. Some of the the names of the characters and the institutions that have been described are fictitious while other names of institutions have been kept intact.

9.1.3 The Period of the Interviews

It was in January of 2008 that the Researcher started the open interviews with Timothy initially focusing on his academic education and his introduction into the professional world. This period covers the 2008 financial crisis, starting with the sub-prime problem in the United States in mid 2007, the Lehman bankruptcy and culminating with the Madoff scandal of December 2008. When these interviews started the 2008 Crisis had not begun and was not part of the investigation process. Once the Crisis started and its impact on the financial markets became clear, it became a central aspect for the study because of its effect on Timothy's professional identity. The study provides insights into professional identity development processes and the role of narratives in these, as the professional begins to question everything from his know-how in this field to the ethics of his work.

9.2 The Story

9.2.1 Making it Happen

Timothy seemed to enjoy talking about his diverse career path. He was particularly proud of the struggle he had embarked upon since University, which after several job positions, had resulted in him being where he was today. As a child, Timothy always enjoyed mathematics and physics. After high school he decided on mechanical Engineering.

"I decided on Engineering because I felt it reflected the kind of mentality which I could not find initially in other disciplines. It was during my last years of high school that I realized that I felt the most comfortable with work that was based on a mental process that allowed you to reach certain conclusions… based on having established a set of assumptions from the outset. I considered this to be a very rational process and one that was well reflected in the Engineering disciplines. Engineering was also less competitive at the time, with only a special type of person wanting to study it. It was usually people with an interest in math with an obsession with objectivity and a rigorous attention to detail. It wasn't for the lazy types…"

On entering his Engineering studies, Timothy was already feeling that the "types" of people that studied Engineering were different. After getting his Bachelors in mechanical Engineering, Timothy decided to stay in University and embarked on a Masters in Mathematics. While he had enjoyed Engineering, he was starting to realize that engineers did not make very much money, so he decided to continue to focus on what he liked, while he decided on how he was going to make money after graduation.

"I always got a kick from solving problems. Math was great for this…problem solving was a challenge that I always looked forward to… I felt I was very much in control of what I was doing, there was a high level of certainty, of reaching the required outcome…well, I really felt it was a more than just a high level of certainty…I was always

pretty certain about being able to reach the required outcome. I felt more at home with those disciplines that believed that much of human experience could be measured and managed. I had little time for those other disciplines that felt that most things were ambiguous with respect to human behavior and emphasized its ambiguous nature. I felt that was just an excuse for studying less demanding careers, like the Humanities."

After receiving his Masters, Timothy got his first job at the Boston Consulting Group ("BCG"). It was during this time that Timothy realized that he was not only interested in pursuing predominantly quantitative disciplines like Engineering, mathematics and strategic consulting but he was by now increasingly starting to focus on how he was going to make money, big money. These were the 80's and Timothy was exposed to a lot of media hype regarding the boom in investment banking and the money that could be made.

"After a careful analysis of the different disciplines which best suited my way of thinking, I realized that investment banking would provide me with both, work that was compatible to my mindset, and also with the ability to make money in the 1980's, well and beyond what was available in other quantitative disciplines. It was at this time that I decided to go and do an MBA in the United States as I felt that, when coupled with my degrees and two years at BCG, this would position me well to seek employment at a blue chip international investment bank."

To an outsider, Timothy seemed to have carefully planned each step of his career, looking always to align his mindset with his potential for economic gain. After two years at BCG, Timothy decided to get his MBA at New York University. This was not an inexpensive decision but with the hope of capturing an Investment Banking job paying between $300,000 - $400,000 a year, Timothy felt that it was definitely worth the risk. Timothy's two years in New York studying were really an eye opener. New York was the Mecca of investment banking and it was here that he was able to savor what he hoped he would soon feel "first hand". The mid 80's were big years for investment banking in New York as reflected in the book "Liar's Poker" (Lewis 1989) which

personalized well the excitement and power associated with this field which not only defined their work, but the personalities and culture (de l'Etraz 2002) of investment bankers. Upon receiving his MBA, Timothy accepted a position at the investment bank, "Bankers Trust" (BT), in London as a commodities trader.

"I had finally achieved a goal that I had set out for myself well into my mechanical Engineering degree, to achieve a job within a discipline that not only I felt comfortable in but also made a lot of money. While I felt very lucky and satisfied, I also realized that this had been more than luck, it was a well thought out plan whose pieces were now starting to fall into place…"

While Timothy wanted to stay in New York City, he realized that London was the biggest financial center in Europe and he was very excited about the opportunity.

"There is one anecdote that I will never forget when I joined BT. I had arrived in London but there were problems with my work permit and it would take several weeks. I was worried that this might delay too much my starting but my new boss, who was a top trader, told me not to worry and literally told to me to spend the next four weeks in Italy 'getting laid', all expenses paid by the bank! What a life I thought, this was going to be fun. It was just like I had imagined it…Later that year, my boss was to shock several of us by ordering pizzas one day, to be delivered by plane from Chicago…yes, he ordered them in the morning and we ate them in the office that night! There were parties…there was cocaine…it was all there. He made us feel like we were at the top of the world. He would always say that if we followed him he would always take care of us."

Timothy explained to me that with Iraq having just recently invaded Kuwait, these were very interesting times for commodities trading. The invasion was creating a lot of volatility in the markets. It was this volatility that challenged many of the models that traders frequently used for the pricing of many of the products they traded. Timothy loved working at the commodity trading options desk because it was here that he could apply his mathematical expertise to the trading of a product which could

greatly influence the profitability of the desk and ultimately his own, that year, through bonuses. For investment bankers and in particular traders, most of their pay is usually variable and depends on the returns they make for the bank. It can usually be several times their base pay, so a trader like him, making $100,000 base could easily make $400,000 or $500,000 by the end of the year.

It was during this time that an event occurred that was to make Timothy realize for the first time that not only could mathematical models and market intelligence be used for making profits for the bank but also to manipulate entire markets. There was a famous investment manager by the name of George Soros at the time that had started "shorting" (betting that it would go down) the Pound Sterling. This man controlled so much of the currency market that he literally forced the Pound down so that it was devalued versus other currencies. It was an event that stunned the world. One man had forced the British pound down.

"As I sat there that day and saw the currency markets on my screen with the Pound going down…and down…and down, I was amazed at how one man, one investor…could exercise so much power so as to force, what I had always understood as a self regulating marketplace, based on the tension between natural market forces, to act this way. There was no reason for the Pound to drop like this. It was pure speculation! Pure manipulation…but where were the market forces that should put the Pound where it should be?"

Later that month, Timothy had another real eye opener occur right in front of him…it seemed that someone in his bank was "shorting" the New Zealand dollar and that the trades represented 80% of the reserves of New Zealand! Because of the size of this trading, it became public and the Prime Minister of New Zealand called the bank in order to stop the bank from continuing to "short" the NZ dollar! The chairman of the bank responded that this was not a very big position for the bank in the context of its currency trading business, so he acquiesced for the time being and agreed to stop shorting the NZ dollar!

9.2.2 Becoming a "Master of the Universe"

It was during his first year at Bankers Trust (BT) that Timothy came to realize that he was very much in a truly special place. As time passed and he met other investment bankers in the City of London, Timothy became increasingly convinced that his Bank was the "Silicon Valley" of banking. It had the smartest people, the best political relationships and the best business contacts that he was starting to realize were all key to succeeding in this business. BT had put together a unique group of individuals with a unique culture, at an exciting time in the history of investment banking.

"I realized for the first time, that my quantitative background was not my most important asset in order to succeed in an investment bank. I had managed to get in as a "Quant" but my ability to succeed would require me to go beyond this purely "rational" way of thinking…I would need to master this 'vision' thing or whatever it was that did not come with the "Quant" package that I got in school.I reached a point of inflexion which was that it didn't matter how good technically you were to succeed… but that it was all about making money…which is very different! A lot of deals were executed knowing that, based on risk or regulatory parameters they did not make sense, or even jeopardized the bank itself but were paradoxically rewarded by management! This was a bank that prided itself on risk management that ironically was later to become its downfall. In the end, it's the compensation model that banks adopt that rewards this behavior…the higher the risk the higher the reward. You either played the game or you didn't make money and would be eventually let go. But to win at this game you needed the right information that others didn't have. The vision thing was about being able to get this information that would differentiate you from the rest. In addition, you were expected to play this game this way and not to question what was going on. There was no room for questioning. You were sucked into a way of seeing your work, like your peers and how to go about it. There were expected norms of behavior that reflected your acceptance of this way of thinking…like rituals that reflected your tacit approval of what was being done."

"I now realized that I had to get out of trading and into a sales role so I could be more client facing and learn more about this vision thing…it was there that you could make even more money because you had more access to information or how to make better use of your existing information at the expense of someone else."

Timothy started looking around now for either a position in sales at BT or somewhere else. He did realize that it was "crowded" at BT and that it would be easier for him to make his future somewhere else where he could add more value at the outset. Investment Banks were the kind of place where "perception" was everything and where you came from made all the difference (de l'Etraz 2004). He now had the right credentials so it was important to take advantage of this while BT was among the "best" in the business.

"People were willing to pay big money for professionals that could bring over this culture of success and winning to their firms. It was important to do this while BT was at the top. It was like coming from a top Business School. My boss use to say we were, Masters of the Universe."

The first offer he received was from Barings in London. Barings was a traditional conservative British investment bank. He decided against it because he was not very convinced about the seriousness of the people in the team he was being asked to join. To Timothy, they seemed to him like "cowboys", guys who would be willing to take on a lot of risk…while he was used to seeing a lot of this at his Bank, it was different, they were very smart risk takers…there was something special about them…they took things to the limit but always won.

"Barings was now run by the guy who brought me to BT. The same guy that had ordered the Chicago pizza and had told me to go to Italy to get laid for two weeks while I was waiting for a work permit! I remember, when I first arrived in London his secretary made a mistake with the booking of my hotel so my boss told me to stay at his house as

they were in Paris that weekend. It was great! I spent the whole weekend at his house watching TV and drinking his wine! On Sunday I remember that I was so exhausted that I took a bath in his jacuzzi. Whilst I was indulging myself listening to music, his wife walked in wearing only her knickers! Obviously, she was unaware that I was at her house! Could you imagine my ex boss running a top investment bank that until recently had been founded and run by a British Lord?"

It was soon after this that Timothy received an offer to join Lehman Brothers, heading sales for Southern Europe out of London. Lehman Brothers was a top investment bank in the City of London. It was aggressively hiring people from BT and others. Timothy took the offer immediately.

"I was so excited with this offer…Head of Sales at Lehman Brothers! This was it…I would have an opportunity to use what I had learned at BT and become one of these guys that was able to complement the math part with the "vision" thing and at a premier Investment Bank!"

While at Lehman, in 1995, Timothy began to see that Bankers Trust was starting to lose its standing in the markets, maybe it was also because many of the people that had made it big there were now being hired away by other Investment Banks at even higher salaries and bonuses. There was also a story in the press about a trader that who was internally nicknamed 'Animalone' who would literally talk about how he was fucking his clients…and since all trader calls were recorded, some of these made their way to the press and the exposure was not good for BT.

Another important event that occurred while Timothy was at Lehman was the demise of Barings. Sure enough, the guys that had tried to hire him turned out to be real "cowboys" with one of them working closely with Nick Leeson who would be responsible for the biggest trading fraud in history up until then. Leeson was generating fictitious trades from Singapore where he was based. He was making so much money that no one really cared to check up on him. If he made money, everyone

else around him made money. Leeson was responsible for the back office operations in trading at the Singapore office. Leeson's $ 1.5 Billion dollar fraud caused the collapse of the UK's oldest investment bank. All this while Timothy's old boss was in charge.

"Nick was making such a shit load of money for Barings that no one in London really cared. No one asked any questions, especially not my ex-boss...hahahah".

It was at this time that Timothy started to look at his industry in a different light.

"While at Bankers Trust....I came to realize that being a Quant was not enough...you needed the contacts, relationships and the vision thing...As I settled down at Lehman and saw Banker Trust starting to come apart with people leaving...I realized that money attracted brains but not a 'value' system. Basically I am in a line of work that for the most part is driven by greed and operating within a legal framework. The risk controls are there to know how to quantify your risk so you can still make money. One is always operating within a fine line of what is legal and illegal, low risk and high risk. Driven by greed is not necessarily the same thing as corrupt. Let's remember that a value system is something very personal...sometimes it is congruent with the people you work with and sometimes it is not. These people usually did nothing illegal but it was the lack of "moral due diligence" which made them push the boundaries into making deals which did not make any sense but were very profitable. Before now, I never imagined that this discipline would be so exposed to so many qualitative issues, like greed. Greed, was not just a personal thing here, it was institutionalized into the discipline. For the first time I was starting to question the meaning of my know-how, now. How was a quant so wrapped up in issues that seemed to do more with sociology or psychology? I realized I was also different as a person...I was not only accepting all these stories around me, I was part of them...this was not the mechanical engineer anymore."

So I asked Timothy why he had continued to work in this business after having realized that it was driven by greed.

"What options did I have as a quant-type person if I wanted to keep up my standard of living? I didn't see any at the time...in any case, if you were paid to take risks, then it made sense to do it, right? It seemed like the rational thing to do."

9.2.3 The Party is Over

At this point Timothy and a team of Lehman bankers got hired away by the bank, Credit Lyonnais. Again, he is hired as head of his area and feels good about what he is doing. Credit Lyonnais was becoming very aggressive trying to become a leading investment bank. Unbelievably, within one year of Timothy joining, most of the senior management of Credit Lyonnais was fired on corruption charges.

"It is at this time that I started to feel that I needed to find a way to stay in investment banking but go to a quieter environment. I felt I had been very lucky as so many people around me were taking their greed to the limits and sometimes getting into trouble. It's all driven by greed, greed for money, social status, a better house, a better trophy wife... Few people did anything illegal, it was the imbalance of "knowledge" between bankers and clients, with the latter knowing the risk or reward payoff of their actions against their own conscious... that they were screwing their clients! In the end, it's all about the compensation models that banks have... that encourage this type of behavior. I needed to find a less 'important' investment bank, one that was less in the limelight. One where I could be seen as coming from a blue chip investment bank and adding value at the Bank but where the risk taking and the culture of greed was less prevalent".

Soon after the corruption charges at Credit Lyonnais, Timothy and several other bankers from Bankers Trust were hired into ABN AMRO Bank in London. Already quite a few bankers had gone there. His time at ABN AMRO was really a welcomed break from the fast pace at the other banks. This was banking as he had imagined it at University, very comfortable. He spent four years in the commodities area and then transferred to Mergers & Acquisitions (M&A). While he was now more obsessed with living than with money, it was clear to him was that you needed money to live. The

trouble was that most people with money did not know how to live or enjoy it. He was learning to do that now.

By this point Timothy starts to believe that he has acquired the "vision thing" and decides that he is ready to go off on his own. He had the expertise, the know-how, and he now had the contacts, so by staying in the bank he felt increasingly that he was "leaving money on the table". Why should he only get a piece of the fees and give so much to ABN AMRO when he could do this on his own? He wanted more money now and felt he could get it.

"I decided finally to start something on my own. I started an M&A boutique and hired a 9-person team. This was not an experiment. I was going all out. I invested over 1.5 million dollars of my own money that I had saved working in investment banking during the last few years. I felt this was my chance to make millions, as ABN AMRO was making with me. I didn't need them anymore."

The next four years were very difficult for Timothy. He had invested all of the money he had. This was hard earned money from many years working amongst what he now considered to be among the biggest "cowboys" in the business. Looking back it had been tough and it would have been great, to have avoided, some of those places like Lehman and Credit Lyonnais but he had, had few options at the time. By moving around a lot you made more money. Every time you joined a new bank you had a sign-on bonus and a salary increase.

In those days, doing M&A as a boutique or small firm was not easy. The big banks had the ability to lend buyers in many cases all the money they needed to acquire the company that they were showed. In many cases, they wouldn't lend you the money unless you used them as advisors so small boutiques had a difficult time to compete.

"Essentially many of these executives didn't bother doing too much due diligence on the deals that were brought to them. It usually wasn't their money as these were usually

quoted companies. The better the name of the bank, the better you were able to cover your ass as a CEO. The banks also had equity research Analysts that covered your company's stock in the markets so they would write good recommendations about your acquisition so that your stock went up and then you, as a CEO, made more money... What a racket that was. How was I to compete with this?"

Timothy's timing had not been the greatest...between the cheap money and the crisis of 2000 just around the corner...his company had trouble making money and holding on to good employees...after four years and almost going personally bankrupt, having lost over $ 2 million, Timothy closed down the company.

"I was fed up with the volatility...I now realized that I did not want to work with people that put themselves always in front, instead of for the good of the company. Greed was prevalent everywhere and this coupled with volatile markets was a recipe for failure. I needed to find a part of investment banking that was more stable, more trust-worthy, less speculative. Trading was great for the ego while you did well...it was however an addiction...you had to win...no matter what it took...in or out of the boundaries of legality...M&A was also a rough business where your employees always felt like 'prima donnas', always looking after only themselves, but to survive as a business you needed to invest a lot in people in order to compete...I wanted something where you could feel respectable...where there was a track record of doing good and you could share that good with good clients over more than the short term. I wanted to make money from clients because I was doing good for them."

It did not take long for Timothy to realize that of most of the areas of investment banking, it was the Fund business that was the most stable. Through several contacts he had made in the past, Timothy joined a new start-up asset management company in London that would be focused on exactly this kind of business. It would identify "solid" and reputable equity and hedge funds with consistent returns that it could then offer to high net worth individuals internationally. If the funds did well, say generate a 12% return a year, then the fixed commission of about 1-2% was not a

problem, as the client still made 10%. The feeder fund made money in any case. The feeder fund had a fiduciary responsibility to the client to make sure that the funds it invested in, were of the highest standing and did not expose the client to unreasonable risk.

What was different for Timothy this time was that the people running this asset management company were people he could trust. He had experience with them in the past, at one of his jobs, and had put his trust in them and they had not let him down. Some of them were very, very wealthy and they had no reason to act as "cowboys" or be excessively greedy, he thought. They belonged to blue chip English families with a history of reputable business dealings. Timothy felt lucky to be working amongst them. Few people had this opportunity. The name on the door of the company was the name of the Family. It was a trusted name and one that most potential investors would feel good to be investing alongside with. For Timothy, this was like a marriage made in heaven. After many struggles in the past, he felt that this could finally be his lucky break.

Timothy joined the firm in 2005. It was at this point that I began to get to know Timothy but it was not until late 2007 that I decided to begin to start my ethnographic study of him. It was through many open interviews that I had developed the historical background that I have presented until now. It was now however, at the fund company, that I would also begin to observe him directly as well as interview him from time to time.

"*Twenty years ago I came into this business as a Quant. My know-how was based on my ability to work with mathematics in financial markets. This emotional roller coaster has not only made me lose all my money because I got so immersed in this 'culture of greed', even putting my own family at risk, but it has also changed along the way what I consider my know-how to be now, and what it means. I am glad to have left that culture behind.*"

9.2.4 The Beginning of the Crisis

Timothy was very disciplined at work, always coming in by 8:30 am and leaving late. The first thing he would do is read the morning papers and go through the market news on his two screens where he had live feeds from the major markets. My desk was just a few feet from Timothy so I could hear most of his telephone conversations as well as get a feel for what he was working on. Just behind the screens I could see if he was either reading, analyzing papers or studying the screens.

Early 2007, was the beginning of a difficult time in the financial markets. By now there were many rumors in the market that real estate prices in the US were starting to drop dramatically while at the same time many people were starting to default on their mortgages. Timothy explained to me that this was natural because many people had received loans for almost 100% of the value of the house, so if the price of the house started to drop then their mortgage (or what they owed) was more than the house was worth in the market. He referred to this as, for the most part, a US problem as European banks did not lend so much to home buyers.

"This is natural. The market will resolve these problems itself. It will reach a new equilibrium. Markets rationally go up and down but eventually, where supply meets demand, they reach equilibrium again. Home prices will just have to come down a bit in the US. A few people may lose their homes but that happens all the time…"

What seemed to be different this time was that the media was picking up on this very extensively. They began to describe this as the beginnings of a crisis. For Timothy, this was something new. The media had not made such a big deal of a crisis like this, in the past. Over the next few months, as things got worse in the US real estate market, one was being bombarded every day with bad news coming from the US. This time the media blitz was affecting very negatively the confidence of the people and the markets. As the months went by, I could see Timothy getting increasing nervous about his work.

"I am surprised at the hysteria being created by the media…I mean after all, there are brilliant minds that have created financial models to deal with this sort of volatility…the markets will calm down… once the bad stuff gets flushed out of the system."

A few months later in June of 2007, alarm bells went off on Wall Street as two hedge funds of the New York investment bank, Bear Stearns lurch to the brink of collapse because of their extensive investments in mortgage-backed securities. I could see that Timothy was starting to be affected now by this whole situation in the markets. This last episode regarding the two Bear Stearns funds almost collapsing got him very confused.

"Bear Stearns is one of the smartest houses on the street…this sort of thing doesn't happen to guys like this. They have some of the best quant models there are in this space. It is hard to imagine that this would happen to them and it is not good for the market."

Luckily, for Timothy, their asset management company, Sullivan & Sullivan, didn't have any investments in these funds. Timothy did show me the results of the Sigma Fund that they distributed to some of their best clients. For the last 15 years, they were amazingly consistent, returns of over 12% a year. Timothy was very proud of the fact that their firm was one of the few in London offering investors the possibility to invest into this fund. Sullivan & Sullivan had a strategic relationship with the owners of Sigma. It was a closed fund but Sullivan & Sullivan had an allocation of over 1 billion Pounds that they could bring friends and family into. Timothy ran the risk management on this fund and also managed the communication and reporting to the Sigma clients. As the economic crisis loomed in the US, Timothy felt this fund provided investors with "peace of mind" in turbulent times. Timothy showed me the prospectus on the fund with its historical returns. Since 1992, the lowest annual return was 8.26% in any year and the highest 17.39% with total annualized returns since 1992 of 552%. Timothy explained to me that their investment strategy was very conservative.

Their approach was quite simple. It involved going in and out of the market relatively often so they could avoid unnecessary exposure to volatility in these uncertain markets.

"This was so beautiful...it is such a simple strategy...it avoids so much of the speculation and greed that one sees going on today."

"But can't other people copy this approach?", I enquired.

"Yes. They try but this firm trades so much that they have proprietary information that allows them to make good margins..."
"You mean insider information? I asked...

"Well yes...probably...but it is legal...I mean he has this information because he is in the markets in a very big way..."

Wow, I thought to myself, to think that I have been keeping my money in the bank making less than 4% for the last 10 years! The more I thought about it though, I kept thinking that there was something a little immoral about a fund, that is one of the best performing in the world, and is only available to the already super rich. By March, on the verge of collapse and under pressure by the Fed, Bear Stearns was forced to accept a buyout by US investment bank JP Morgan Chase. The deal was backed by the US Fed loans of 30 billion dollars.

"Fed Loans to an investment bank to bail out an investment bank that is going under...this is amazing...I never imagined I would ever see anything like this...taxpayer money to bailout an investment bank where people have been receiving million dollar bonuses for years, for what? For creating a problem that we would then have to bail out? Are they returning those bonuses? What happened to the Quants controlling the risk? I mean this is one of the most aggressive investment banks in the business, built by tough guys like Ace Greenberg and then James Cayne who have made hundreds of millions with

this bank...and we were bailing out the greedy bastards!"

By now, Timothy was starting to begin to question what was going on. Things didn't make sense to him anymore. He was visibly distressed and spent greater part of the day doing the same risk analysis on the Sigma Fund. The people who ran Sigma would send him their trades on a weekly basis and he would run them through models that would assess the risk. It was beautiful to him. Somehow the simplicity avoided the risks and volatility. The fund managers just "sat it out", when there were very volatile markets.

The month of September 2008 was probably the worst month for government bailouts in the history of the United States. It started with the US government seizing control of Fannie, Freddie in 200-billion-dollar bail-out. Later in the month, Lehman Brothers, the investment bank, declared it's 600 billion-dollar bankruptcy and Merrill Lynch was then quickly acquired by Bank of America. Later in the month the US bailed out AIG insurance giant for 85 billion dollars.

"Can you believe this? Hank Greenberg, that ran AIG until recently, created this department that dealt with credit default swaps and which leveraged the group using fancy mathematical models...and now the US Treasury is bailing them out...Hank Paulson, the Treasury Secretary...who used to be CEO of Goldman Sachs...which now owns 20 Billion worth of AIG, bails out this financial casino which has grown internationally like crazy off the back of these profits from risky betting? Paulson is saving Goldman Sachs with taxpayer money... I hate this shit....".

Timothy was now not only shaken by the crisis but began for the first time to question even the people in charge in the industry and in government.

"I am having trouble sleeping lately. What is going on with the world? Has greed destroyed our financial markets or is there something wrong with our basic premise and assumptions about Economics or both? I mean, if the governments are bailing everyone

out like this then it must mean something is terribly wrong and we cannot wait for the markets to reach their natural equilibrium anytime soon. The problem is much bigger than we think and cannot be left to solve itself. I would have usually thought that we have probably forgotten to model something, but I have my doubts now."

9.2.5 Madoff

On December 12th, 2008, Timothy came into his office and saw the following story on his Reuters screen.

NEW YORK (Reuters) - Bernard Madoff, a Wall Street trader who founded Bernard L. Madoff Investment Securities LLC, was arrested and charged on Thursday with allegedly running a multi-billion dollar Ponzi scheme, U.S. authorities said.

Madoff, who estimated investors' losses at about $50 billion, informed senior employees of his advisory firm on Wednesday that "it's all just one big lie" and that it was "basically, a giant Ponzi scheme," according to a criminal complaint against him.

Timothy looked stunned....his face was the closest thing to the expression of a grown man crying without the tears...He called me over to look at the story.

"I could see the sweat building up on his forehead as he searched through stories on his screen....I looked over his shoulder and could see that they all said the same thing..."MADOFF Biggest Fraud in Recent History...PONZI Scheme...50 Billion Lost..."

"So who is Madoff?", I asked.

Timothy looked at me, in pain and said, *"Madoff is SIGMA. SIGMA is 100% invested in MADOFF. Understand? SIGMA is all gone...."*

Timothy looked at me and said, "I'm sorry but I cannot stay here...I cannot take this any longer...the only thing that gave me strength during this fucking crisis at work is now gone...and dozens of these clients will think I am an idiot... no a crook!...I have to get out of here...."

That morning the phone rang all morning for Timothy...clients...clients...and more clients hearing the news and wanting to speak to someone...the secretary came into my office several times almost having a nervous breakdown...

At one point, she yelled at me..."Where the fuck is this asshole? He can't just leave me here with these mad people calling..."

I took a walk around the office and could see that there were, few people left in the Asset Management Company, only secretaries and mainly talking around the coffee machines...downstairs on the ground floor there were a few people waiting around that looked like investors that were asking to see someone at Sullivan & Sullivan...

Soon thereafter, a French aristocrat in New York, committed suicide because all of his clients had lost over 1.4 billion with Madoff. Thousands of people had lost billions with Madoff. To his best clients, he was known as the "Jewish Bond", because he was like a bond, always consistent in his returns. Many Jewish charities had invested all of their money with him. Even Stephen Spielberg had lost millions and had now decided to do a movie on Madoff.

On my return, after Christmas break, in mid January, I saw Timothy at his desk again. This time he wasn't working on the Sigma risk analysis. "So how could all these companies have borrowed so much and gotten into this mess?", I asked.

"Well, essentially when Hank Paulson was CEO of Goldman Sachs and speaking on behalf of the largest of large investment firms, he requested that the SEC release them from the

so-called "net capital rule", or the responsibility to hold high capital reserves in their brokerage units. Under pressure from the industry, the SEC, voted unanimously to overturn the regulation. This way giant investment banks, worth at least $5 Billion, were now free from reserves oversight and able to invest massive amounts of capital that had been BORROWED, without needing to hold any assets to back them up. Paulson, amid wild praise from the financial elite that had been given 'a license to steal', was then handed the position of Treasury Secretary by President Bush."

"This same Hank Paulson is now executing a 'rescue plan' to bail out all the companies who have just finished a 'several year spending spree', investing all the money they could borrow on short term risky investments. A few months later the American tax-payers have been robbed of a few trillion dollars, the rules on where it should go, have been rewritten, the economy is still going down, and the Treasury or Paulson, has denied requests to show documentation of who is getting checks from the government."

"This is organized greed and cronyism at its best....I can't believe I am in this business...these are my colleagues...Fuck!"

Sullivan & Sullivan would soon be closing down so Timothy was now looking for work again. While he toyed with the idea of going into a different sector he always managed to come back to the idea of getting back into investment banking. The salaries everywhere else were just not enough for the standard of living he was used to. Sullivan & Sullivan had told everyone in the company that they could stay until June when they were closing down.

9.2.6 Interview with Mr. Sullivan

Since the news of the Madoff scandal, I had been trying to interview John Sullivan, the head of Sullivan & Sullivan. I felt that as part of my work on Timothy it would be important to get his views on the whole situation and in particular, Madoff. I imagined

that since having announced that the firm was closing down, he would have a definite position on the whole mess. The firm was now the target of many lawsuits from unhappy clients and it, as well, was suing Madoff, Fairfield and anyone else involved along the way. Everyone was suing everyone. Several old friends and loyal clients of the Sullivan's, publicly also made comments to the UK press, alluding to the fact that they no longer dealt with the Sullivan family, even socially.

Unfortunately, John Sullivan never returned any of my emails or attempts to get in touch with him. He was now rarely seen around the firm. One day I got a lucky break and ran into him at the Starbucks coffee shop down the street from the office. He was sitting by himself at a large table so I sat down at the table with him.

"Mr. Sullivan, mind if I join you?", I asked

"No feel free…", he replied

"I have been trying to reach you as part of my study to ask you just a few questions…", I said.

"Ok", he replied.

"You realize that this has all been very difficult for Timothy…he hadn't had it easy before joining Sullivan & Sullivan, then this Crisis and then Madoff…."

"Yes indeed….", he replied.

"So, Mr. Sullivan, how would you describe what has happened here with this crisis of confidence in the markets and the bailouts? Unbelievable right?"

"Yes…", he murmured.

"Why do you think there was such a colossal lack of due diligence by so many people on this Madoff affair, in particular…and…"

"It was the Fees.", with that, he looked at me straight in the eyes, smiled, got up and left.

9.2.7 The Quant Identity Crisis

Timothy was very confused these days after my return. During all those months in 2007 and 2008 he had struggled with what was happening in the markets. The bailouts had really done a lot of damage to his free-market thinking that was somehow, very tied to his quant mentality. These things like bailouts of investment banks just weren't supposed to happen and especially not by a Republican government in the US, he thought. Somehow though he pulled through, by settling down at his desk every day and keeping track of the Sigma Fund. It was going to be ok, he thought. Sigma had been the proof for him that if you did things right you could make consistent returns. You just needed to not speculate and stick to the formulas. These people in the markets were just cowboys. They took too many risks and took legality to the limit or even beyond it. There was no way one could work effectively as a Quant if you didn't follow the rules. Too many people were hiding behind this quant justification but had embraced a "culture of greed" of don't ask, don't tell and many, were now simply crooks in his eyes. But the Madoff scandal had now brought down whatever was left of Timothy as a "Quant Crusader".

"Before, because of my mentality, my quant mentality, there were some things that I just did not question. There wasn't a list of these. They were just there. You knew when something wasn't to be questioned. You looked down on people that questioned everything, people that were always emphasizing the idea that nothing was predictable in business. Business and Economics were a science, math is a big part of this science…there were rules and you knew that with realistic assumptions you had predictable outcomes."

"I am not the same professional I was when I left my Engineering degree. That was also not the same person that joined ABN AMRO or the same person that got up off his feet after losing all his money in a failed venture because I got overly greedy. My professional life has been both emotionally and psychologically draining. Today I stand here, after Madoff, once again a changed person professionally. I feel closer today, in my mentality to a historian, then to an investment banker. Today my professional identity is in crisis…again I know more, about what I am not, than what I am…my obsession with objectivity is over…"

"As I started in investment banking I increasingly got sucked into this culture of greed. I got lucky that I happened not to be among the people that took it beyond the limit…I did however blow all the money I had because I thought, I too, could be a master of the universe, on my own. Somehow, the quant strayed away from the discipline he had entered over a decade earlier, his quantitative mindset became influenced and driven by qualitative factors…unfortunately after much experience and just when I thought I had figured out why I had failed so often, I tried to come back to my roots but realized that my discipline was not really a science…it, also like me, depended on the people in it. It was a product of the people in it. If they were driven by greed, it too, would eventually break and it did. I realize now that those market forces that I had always thought should come into play to put the British Pound back where it belonged…were a function of the people in the markets not something sacred called 'the markets', the equilibrium thing was bullshit…Economics is not a science but a function of the players in it…it is a game. People and business need to maintain a minimum level of morality in order for this capitalist system, or game we have, that has contributed so much good to our world, to not get off track… for years I was taught that morality and ethics had no place in Economics because they were not a variable one could model."

"I feel that my mindset has made a 180 degree turn. I am a different person today, more prepared to interpret my surroundings differently, less caged into this rational box, obsessed with the so called objectivity…I do still need the money though…and

unfortunately if the system continues to compensate people this way, it will be only a matter of time before it all happens again."

By mid April of 2009, Timothy was still desperately looking for work wherever he could. The Sullivan & Sullivan offices would close by June so he used this opportunity to work the phones from our office making calls to all the people he knew that might provide him with an employment lead. There were few options for Timothy, now 45 years old with no savings, in Fund Management. He was still however searching in investment banking…it was all he knew…everyday he regretted having left ABN AMRO Bank…had he stayed there, he thought, he would now be comfortably sitting this recession out, no matter how long it took. It was one of the few banks still standing strong. It took Timothy until July, 2010, to find work in investment banking again. For twelve months he struggled not only with living off his savings but more importantly, about whohe was as a professional.

9.2.8 Interpretation and Discussion

The interpretation of the study will emphasize on the following aspects. **First**: Timothy's mindset reflects well the prototype that Toulmin (2001) describes as a mathematically minded professional, which can be presented as a paradigmatic example of this conception. **Second**: Beyond what is described by Toumin (2001), the study shows how the professional identity development of Timothy played a significant role in this example in creating a "culture of greed" in the financial markets.**Third**: While most identity gaps and crisis have been associated in identity studies with work transitions (Ibarra 2000), this study for the first time, introduces how external elements like the Crisis of 2008, lead to changes in expectations and mental models of Timothy's causing his identity tensions.

Timothy, who resembles, what Toulmin (2001) describes as a mathematically minded professional, enters the academic world conditioned by an obsession for objectivity and a keen interest in problem solving. In particular, Timothy is interested in

problems for which, when certain assumptions are applied, there is a high level of certainty in reaching a solution for them. He begins his academic training not having much respect for what he considered to be less rigorous careers like those in the Humanities. He sees these types of people as different. From the every beginning of his academic career, he has in mind two different cultures, one where human experience can be reduced to the quantifiable, the measurable and the manageable (Snow 1959) and the other that espouses more ambiguous and unpredictable human behavioral patterns.

Much of this rationality is based on Timothy exhibiting what Toulmin (2001) refers to as "intellectual blinders" (Toulmin 2001) that focus attention away from wasting time and energy on things that are considered as irrelevant activities to him. He sees these activities as less rigorous and he favors focusing on disciplines that make better use of his mathematical know-how. Much of Timothy's identity awareness is based as much on "what he is" as well as "what he is not", (Giddens,1991; Karrenman & Alvesson 2001). He exhibits a sense of himself many times defined by what he opposes. He sees himself as being closer to people that he resembles in both occupation and education, people who may seem to imitate each other in traits, behaviors and thinking (Tarde 1962). Timothy resembles what McCloskey (2009) so well describes as Mr. MaxU (maximizing you) who is an individual that pays no attention to persuasion, being only interested in information so that he can solve problems, an individual who relates more knowledge with more information (Blyth 2010, Taleb 2007).

In the analysis of Timothy's academic and in particular professional career, narratives form a critical element of the practice. In the narratives he describes in detail, his evolution from being a quantitatively minded professional (Quant) who enjoyed problem solving where one had a high degree of certainty about work and its outcomes, to a more socially constructed (Czarniawska 1997) definition of a Quant's work and its outcomes. It is in investment banking that Timothy begins to discover the other side of financial markets, one which is much more subjective (McCloskey 1998) and where one's other type of expertise, which has little to do with

mathematical know-how, begins to be the key differentiator between failure and success.

As Timothy enters the investment banking Community of Practice ("COP") (Lave & Wenger 1991) he realizes that there is a definite culture that this environment promotes. In the process of self-definition, Timothy utilizes the repertoire of the COP manifest in the Quant culture as a resource with which to construct new meanings. This group shares meanings (Spender 2009) as part of their culture. Timothy provides several anecdotes (Czarniawska & Wolff 1998) that provide transitions to his narrative within the COP.

He describes rituals within investment banking which are used as vehicles for the exertion of what Bourdieu (1977) refers to as symbolic power, the power to define reality (Kunda 2006), how things work. These rituals are mechanisms through which organizational members influence how other members are to think and feel about money, what they want, what they fear and what they should regard as proper and possible, and ultimately, perhaps who they are (Kunda 2006, Van Maanen and Kunda, 1989). His boss refers to themselves as "Masters of the Universe", where almost anything is possible in terms of influencing the markets in pursuit of personal gain.

Timothy tries continuously to keep his Quant narrative going but finally realizes that the basic assumptions it is based on have been slowly eroded and no longer stand. Timothy's narratives become no longer consistent, as their "evaluative framework", that are shaped by a "set of fundamental principles and values" slowly wear down resulting in an identity crisis for Timothy.

Timothy describes the investment banking culture as one of greed, one which itself is a culture and a mechanism of control (Kunda 2006) to induce others to accept and become what the investment bank would like them to be. He describes individuals walking a fine line between what is legal and not legal, where the bank itself has modeled everyone's compensation in order to promote this type of behavior. The

organization or Investment Bank is very much the result of this institutionalization of greed or "organized greed". The organization has institutionalized this culture to the point of turning greed into a virtue, within the organization. Individuals are compensated on the basis of exerting a high level of greed in their work where even when they are clearly "screwing" their clients, this is perceived as a positive organizational trait. It is good if you can get away with it while making money for yourself and the firm.

While the study focuses on one particular type of self-narrative, that of a quantitatively trained individual, and how it's dynamics evolve, the resulting identity crisis of the individual results in increasingly more qualitative narratives. Timothy begins to not only question his professional identity but the also his basic reasoning (Bonet et al 2001), his "quantitative reasoning". This affects the meaning of his work, ultimately questioning who he is as a professional. Ibarra (2000) describes similar situations in which employees change job positions and it is these work transition which create tensions in their self-narrative, ultimately creating identity gaps and requiring identity work (Pratt 2000, 2006). In the case of Timothy these tensions result from external forces, which put into question his existing self-narrative.

At the end of the study, Timothy starts to bring morality into his narrative, feeling that without some basic values the system will not work. McCloskey (2006) argues intensely that markets require an "ethical soil" in order to grow. She defends the notion of greed or prudence as a being a necessary virtue of our system which must however be counter-balanced by other virtues, stating that, "you need a balanced set of virtues".

Coincidently, and to the pleasure of the researcher, Timothy's professional journey coincides with many contemporary events and issues that are at the forefront of the economic turbulence which most of the world is facing today and since the second half of 2007. It has been during this time that many of the assumptions and predictions that financial experts had made about the financial markets have come tumbling

down, resulting initially in market turbulence that has put into question many underlying market assumptions as well as a way of thinking.

Michael Lewis (1989, 2008), who in the 80's shocked the world with his "culture of greed" analysis of Wall Street, decided in December of 2008 to interview during a lunch, his ex-boss at Solomon Brothers, John Gutfreund. Lewis was claimed to have had destroyed Gutfreund's career with the publication of his book exhibiting the slack behavior he had described as being prominent at Solomon. He describes now how for almost twenty years he had been waiting for this crash of Wall Street. At the lunch, Lewis asked Gutfreund what he felt had caused this crash. He responded, "Its simple. It was greed on both sides, greed of investors and greed of the bankers." Lewis argued back that greed on Wall Street was a given, it was almost an obligation but the problem was the system of incentives that channeled the greed.

Gutfreund was being blamed now for creating the mechanism that allowed all this to happen. He had turned Solomon back then into Wall Street's first publicly quoted company from a private partnership. They had transferred their financial risk to the shareholders. The shareholders who were now financing the risk had no real understanding of what the risk takers were doing and as the risk taking became much more complex, this understanding diminished even more. No investment bank owned by its employees would leverage itself thirty-five to one. The moment Solomon Brothers demonstrated the potential gains to be had by an investment bank as a public corporation, the psychological foundations of Wall Street (Lewis 2008) and the Quants shifted from trust to blind faith.

The history of science shows the immense reluctance to admit that existing paradigms have been falsified. This problem is particularly acute for neo-classical finance and Economics scholars because the theories that have been falsified by this crisis are the foundations of modern finance (Black, 2009). While this study has focused on the effects of this crisis on the identity development of one particular individual throughout an 18- month period, one can imagine that many quantitatively minded

professionals are today struggling with economic "meaning" in these turbulent times. In "The Making of an Economist", Klamer and Colander (1990) conclude from their study that over half of Economics students felt mathematics was critical to understanding the economy while only 3% considered a thorough knowledge of the economy important. For many years now Economics has drifted too far from empirical research on real-world problems (McCloskey 1990). It is not surprising when one sees the role of mathematics in the identity development and mindset of the individuals making up this discipline.

While it is not argued, that a level of greed is not a necessary part of finance work (McCloskey 2006), this study emphasizes what has become the "institutionalization" of greed across the financial market firms. The problem is not with greed itself as it is usually compensated by other virtues. It is argued, however that leading to this Crisis, its spread was not only more prevalent than in the past, but was encouraged and promoted through compensations structures, to the point of turning it into a necessary "virtue".

Chapter 10 - Findings and Conclusions

10.1 The Cases: Similarities, Differences and Prototypes

The four cases in this study represent four different examples of professional identity development. At the outset, the four Quants seem quite similar. Each represents a form of individual with a predominantly quantitative academic training whose identity development process over the years has conditioned them to exhibit a fairly closed mentality and who are now facing challenges at work. For these four individuals, having a Quant mentality is not a temporary transition in their professional careers. It is who they are as professionals. It is a fundamental part of their professional identity and as such conditions everything they do in their disciplines, as well as their way of seeing the world. It makes up their professional culture, which at the outset is not comfortable in situations where there is much ambiguity involved. These four cases constitute four prototypes of very distinct professional identity transformations.

The historical identity development process of the Quants is for the most part, the product of a particular strong culture at University, within their discipline, which later, in their initial work experiences, becomes increasingly engrained. Their culture and "sense of belonging", sometimes defined more by what they are not, than by what they are, is in some of their cases reinforced in their new work environments, while in others it encounters a new reality.

It is through their professional identity development, which is affected by the situations they encounter in their professional careers, that their professional self-narratives face adaptation challenges in their new roles. Upon closer observation, and an analysis of the individual cases, we find that their challenges are expressed in each of them as some form of limitation in their work. Not all of them, however, recognize their limitations, or deal with them in a similar manner. While their limitations are not always evident to them, they are clear a performance impediment in their new work

environment and as such either become a matter of concern for their firms or affect their own view of themselves as professionals or both.

For all these cases, each individual faces their adaptation challenges with no prior training or preparation for them. Their prior academic and professional training has been very much part of creating who they now are, often exhibiting "intellectual blinders" (Toulmin 2001) that leave them very exposed to other more qualitative arguments and ambiguous work processes. They face their new environments alone and with no sense of direction from management that is sensitive to their Quant conditioning. Ironically, in some cases, it is their identification as a mathematically minded professional that is the main reason why they are there in the first place, having been selected for the job for that reason.

In every case, each individual enters into some form of professional identity crisis but how they deal with their crisis and how this eventually forces each of them to refocus their careers and professional identities is quite different.

10.2 The Case of Dimitri

In the Investment Bank, Dimitri is initially a well regarded junior analyst, having worked his way to this position after several years of very analytical work, working within the Mergers & Acquisitions teams. He has actively embraced the culture of the Analysts and adopted their way of seeing the world, with a strong emphasis on work ethic, the pursuit of money, knowledge and the perceived power associated with working inside an investment bank (de l'Etraz 2002). It is as he becomes more exposed to more senior members of the department, as well as the increasingly demanding client interaction, that Dimitri begins to question the nature of his work.

This questioning, leads to greater and greater frustration on his part, which begins to be reflected also in the views that his junior colleagues begin to have about his role within the teams. His identity development, which had over the years reinforced the

view of himself as an investment banking analyst was now reaching a point of inflection, where he was now beginning to question, not the nature of his know-how, but the business relevance of his surrounding work environment and colleagues.

For Dimitri, the crisis that eventually leads to his decision to leave the investment bank, is not his doing. For him, it is not his limitations but those he perceives the people and the organization around him have, that is the problem. He begins to see a "disconnect" in prioritization and shared objectives between his seniors and the rest of the teams. He questions the direction they are taking the teams in pursuit of client work and this puts into question the very nature of his profession, one very much centered on providing clients with advice. Dimitri is unable to deal with the levels of ambiguity associated with setting client objectives and strategies, his closed mentality, in this respect, begins to question the decisions of his superiors, creating a motivational problem for him. He begins to lack the necessary flexibility associated with this type of client facing work.

Rather than "fight the system", Dimitri decides that it is time for him to pursue an MBA at a reputable business school back in his home country and seek a new profession. Dimitri's crisis results in a break of his existing profession. His goal now is to leave investment banking behind him and seek out a new career, one where he can feel more attuned to his way of seeing his work.

Ironically, after completing his MBA, Dimitri tries unsuccessfully to return to investment banking. For a few years he survives as a freelance investment banker, working on particular assignments until he finally gets a job in international business development at a local construction firm.

Today Dimitri, admits that his MBA has helped him look at his Analyst days in a different light. His way of seeing the world back then had been very rigid and today he shares much more how his seniors back then had perceived "client work" and the importance of their approach in doing advisory work. He realizes now that what he

perceived as ambiguity and confusion back then, in decision making, on the part of his seniors, was very much a necessarily opportunistic approach to doing business, one which he is now faced with every day in his new business development activities.

10.3 The Case of the Researcher

The Researcher had always had keen interest in mathematics. Upon leaving University he had become a programmer and the ability to do his work was very much based on how well he could program computer code in pursuit of certain functionality. There was little if no ambiguity involved here and the programmer was very much in control of his work all of the time.

In his new work environment, the Researcher begins to encounter levels of ambiguity in his work, which he is not accustomed to. While he struggles with this ambiguity, from the outset he realizes that this is a limitation that he must overcome if he is to succeed in more qualitative type work, like sales. It becomes a personal objective for him to succeed in his new work and at a great personal and emotional cost, he works his way through a six-month training program, which changes his way of seeing the professional world around him.

The Researcher had entered his new work environment from a very different professional culture. The type of professional culture he now encounters is one where ambiguity and the ability to excel in dealing with it, is a key value trait. While he initially struggles, as the Researcher manages to overcome obstacles he feels a personal satisfaction in reaching these new objectives which he feels are so important if he is to succeed in business. The professional identity development process, which changes him as a professional and his subsequent professional identity, is reasonably short, but intense and above all intentional. Through the entire process the researcher is conscious of the change he is going through and makes every effort to continue no matter how difficult it is becoming.

The crisis for the Researcher is about a realization of his own limitations. While at times, in his training program, he faces what he considers to be moral issues related to the type of work he was doing or the type of people he is dealing with, he subsequently realizes that it is often about how you look at these things. What may seem questionable in terms of work can be looked at in a different light from a different perspective. The entire training program, with continuous support from his colleagues and boss, forces the Researchers to open up what was an initially very rigid and closed mentality.

The Researcher was very fortunate to find in his boss someone who identified his closed mentality from the outset, who designed a "crash course" training program specifically designed to open his mentality within six months. After much soul searching and advice from third parties, the researcher was able to gather enough strength, to realize his limitations, and persist throughout the process.

Afterwards the Researcher went on from that training program to work in venture capital for 2 years and then began a 20 plus year career in investment banking until he decided to leave and enter the academic world as a professor.

10.4 The Case of Roberto

Since his days as an Engineer, Roberto has worked in work environments where numbers were rarely questioned. From his early days in the consulting industry where he was responsible for data warehousing to his later days working in a large consulting company, Roberto felt very much in control of his work. His professional culture was one where the meaning of numbers was very much part of your own know-how, of who you were as a professional.

The position of Finance Director at a medium sized software company, Alpha, seemed like a natural progression for Roberto but it was in having to deal with so many "culturally different" areas like sales, human resources and production that Roberto

begins to encounter a much more ambiguous reality to his work. This reality is one where numbers are questioned all the time and their meaning is continuously negotiated.

This is when Roberto's crisis begins and while he also sees his rigidity in dealing with these situations, as a limitation of his own, he struggles with his mentality as he is forced to continuously confront his colleagues in management situations involving financial figures.

Ironically, Roberto's eventual downfall is caused by his own mistakes in dealing with numbers. By then he has also changed as a professional and realizes that he is no longer the same person he was when he entered the company. His professional identity development had taken him now down a course from which there was no turning back. He was no longer obsessed with the sanctity of numbers, nor uncomfortable in dealing with ambiguity at work. He was now seeking greater exposure to client sales in his new employment.

Upon leaving Alpha, Roberto seeks employment as a sales consultant for an Engineering company. After 2 years there he leaves to join a strategic management consulting company in sales where he is relocated to Dubai where after 2 years he has now decided to try his luck as a sports marketing entrepreneur.

10.5 The Case of Timothy

Ever since Timothy graduated as an Engineer he knew that he would have to take his career in a different direction if he was to make more money than the average Engineer. This led him to an MBA in New York City from where he then went into investment banking in London. During this time Timothy is exposed to and becomes part of being a "Master of the Universe" (Wolfe 1987) with all the excesses associated with the investment banking culture of the 1990s'.

After several years as an investment banker, Timothy decides to go off on his own and start a small Mergers & Acquisitions service company, which was his line of work. He feels that there is no reason that he should be sharing his good fortune with his employers and as such can succeed on his own. After 2 years struggling with his new business, he loses all his savings, over $2 million, and decides to return to investment banking but this time, seeking an area more stable with less perceived employment volatility.

Up until now, Timothy's professional identity development was very much guided by himself. Ever since he left Engineering, his professional culture and web of beliefs (Alvesson 2002) is very shaped by the investment banking culture of the time. A culture associated with believing that markets always naturally move back to equilibrium if left alone and that the greater the sample size the more you know about the phenomena. It is a mentality that believes that ambiguity is measured through risk and that individuals are in general maximizers, with their behaviors being something that one can in general predict and measure.

Tomothy's professional and personal crisis begins when the Economic Crisis of 2008 begins where everything from his way of seeing his professional world around him to his personal employment begins to fall apart. As the very foundations of his professional know-how and beliefs begin to be eroded or destroyed one by one as result of the bankrupt investment banks and subsequent bailouts, Timothy goes into a deep professional crisis which culminates in his star investment, Madoff, being declared a Ponzi scheme, subsequently losing all his clients monies.

At this point Timothy's professional crisis sends him into a deep depression as he enters a long period of unemployment and soul searching. He begins to not only question his professional know-how but the ethics of the whole industry of his work.

Two years later, Timothy who is struggling to keep up his standard of living, enters again investment banking. He claims that, while he is a different person now, he cannot afford to maintain his way of life in any other form of work.

10.6 Case Discussion

The adaptation challenges in all four cases are no trivial matters or everyday socialization exercises of attempting to instill a corporate culture, but constitute critical turning points in the professional careers of most of the individuals. In all of the cases their professional identity development processes have direct ramifications to their level of performance within their firms.

Some, like in the case of Dimitri, fail to see their own limitations, blaming the organization and its superiors, end up exiting the organization entirely. Roberto, on the other hand, pays the costs of these adaptation challenges by being dismissed from his job and starting again, but this time having a self-realization that his Quant mentality is changing and that he is now a different professional. Others like the Researcher realize very early on of the need to change this mentality and eventually do so at a great personal cost. Finally, Timothy, his realization and struggle, during the Economic Crisis of 2008, eventually leads to a professional identity crisis of his own.

The adaptation challenges create a particular type of crisis, which is very different for each professional. For Dmitri, his crisis is about a becoming totally disillusioned with his career choice and deciding to go back to University. The Researcher faces a strong, but fairly short-lived, emotional crisis in the course of completing his training program, which eventually leads to him succeeding. Roberto's crisis turns into a gradual, multi-year, change in his way of seeing the world, leading him to feel he has changed as a professional but within his general line of work. Timothy undergoes a deep and disturbing professional identity crisis that leaves him questioning everything from his knowhow to the ethics of his work.

Each crisis also leads to different realizations on the part of each individual. Dimitri does not feel he has changed as an individual. On the contrary, if anything he feels the organization and its superiors have gone astray and he does not perceive his own limitations in dealing with the reality of client work. The Researcher is convinced from the first day of his own limitations and his struggle is about this internal battle between the way he has been trained to see the world and what he perceives as the way he must see the world in order to succeed in business. Roberto's realizations take longer to take hold and occur as a result of a series of internal company struggles, which make him question continuously his way of perceiving the meaning of numbers. Finally, Timothy realizations occur once his own professional identity enters a crisis of meaning itself, very much questioning not only his professional discipline and its fundamental pillars, but the ethics of his work.

10.7 The 2008 Economic Crisis

Some of the factors leading to the Economic Crisis of 2008 are to some extent very representative of this Quant mentality. It is a mentality that, while working in the realm of the social, prefers a "scientific model", an approach described by Hayek (1989) as "the pretense of knowledge" (Ghoshal 2005) where all notions of human intentionality are replaced by causal determinism. It is a model that assumes a Homo Economicus, where people are rational and self-interested maximizers. It seeks to work within the realm of "elegant mathematics" so that one can remove as much as possible ambiguity and subjectivity.

For the Quants in our study, this model was part of their culture and as such it encouraged them to act accordingly. In each case, they enter their new work environments with a "blind faith" in this model. Timothy is convinced initially that the markets and the professionals running them will find their way back to equilibrium. He is convinced that the brilliant minds that run these models will find a way out to this economic mess but soon begins to realize that the contrary is happening. The same people who have had a responsibility in taking the markets to their limits, many

of them now start to bet against the markets, taken over not by a free market ideology but greed, only making the situation worse where it needs to get bailed out by the governments.

Our Quants however, were sometimes face-to-face with issues of morality and ethics, which are inseparable from their identities. In one case our Quant, Timothy, was "sucked into" a vicious circle of greed, arrogance and power, all symptoms of a compensation system gone wrong, which denied any moral or ethical responsibility on the job and had managed to turn greed into a "virtue".

For many, this "blind faith" in the model, was the pillar or excuse on which much of this arrogance and power was able to develop and grow. More than an ideology, it had turned into a self-fulfilling prophecy, one that made it difficult to attempt to stop and correct the excesses of the system. Not only was morality, a victim of this model, but even "common sense", was scarce, as the obsession in the model was reminiscent of the "intellectual blinders" (Toulmin 2001) of many of the disciplines.

Timothy, as a result of the crisis, lost this "blind faith" in the model, which developed into a personal professional crisis for him, and all he was left with now was the need to maintain his standard of living. Many, no doubt are today in a similar situation, and many take comfort by being in a state of continuous denial, that the model has failed them.

10.8 Contributions to Theory

While much of this study has been centered on the culture of quantitatively minded professionals and their way of looking at the world, it has been in the area of professional identity development that my study contributes to an understanding of how these professionals actually create, maintain and modify their identities. This study has also contributed to understanding better the role of organizational culture and how certain professional disciplines can play a role in creating "thick" or "strong"

cultures (Kunda 2006) with an associated mentality, within organizational contexts, which can then facilitate or hinder socialization strategies.

This work is one of the first to study individual, quantitatively minded professionals, not as professionals that are part of a quantitative group (Abbot 1988), but as a group exhibiting a particular mentality which influences their adaptation and socialization outcomes. Existing literature on professional identity construction within the organization is primarily focused around careers & role transitions, socialization and identity work (Pratt 2006) and has not focused on types of mentalities that can create the conditions for tension and change in professional identity development.

All of my contributions to theory derive from the fact that the cases that I have chosen for this study present individuals, who in addition to being part of their own professions, exhibit a type of mentality which is at times an asset to their professional work while at other times, an inhibiting factor in their adaptation and performance. It is this characteristic that identifies certain different aspects and limitations of present theories. While these contributions do not represent important new developments or new theories, they provide a greater understanding of theories presented in the conceptual framework and literature review, emphasizing their limitations, creating new views and opening up new areas for possible future research. The implications, of these contributions, are presented in the following paragraphs.

While most of studies imply an identity construction rationale, few of them spend much time observing the actual process of identity construction (Ibarra 1999) as this study does. It is in providing a greater understanding of the finer detail of the actual processes of identity construction that this study has focused, and contributes to existing professional identity development theories.

When looking at the role of identity development in professional career and role transitions, this study has highlighted how individuals spend time developing a "culturally appropriate self". Much of today's identity research involving "role

transitions", assumes a stable self and organization where the "becoming" part of the organizational culture is part of the linking of the employee and the organization (Sveningsson & Alvesson, 2003). Much of the present work stresses the unstable aspect of "becoming" where it is the dynamic aspect of creating a sense of self through struggles, that provides temporary answers to the "Who am I?" and "What do I stand for?" type questions.

This study also contributes to socialization research by adding to a recent increase in work, which draws attention to individual agency in constructing self-tailored identities, within the constraints of occupational norms (Fine 1996, Ibarra 1999, Van Maanen 1988). Ibarra (1999) in her work describes investment bankers experimenting with provisional selves, through the use of image and identity in professional adaptation. Understanding the social and psychological processes by which individuals construct or modify their professional identities has become an important research subject (Ibarra 1999). How an individuals particular mentality and the conflicts it encounters, sometimes from external sources, can play a role in their construction of their identities in another important contribution of this work.

Throughout our Cases we have been able to witness each of the professionals undergo an identity process that has contributed to identity development theory by describing in detail how professional identity development actually happens for four particular professionals. The relationship between socialization and identity development and change is often overlooked in socialization studies (Ibarra 1999) with the question of whether individuals change to fit their jobs or change their jobs to fit themselves being very prevalent (Ashforth & Saks, 1996; Van Maanen & Schein, 1979).

The area of research closest to our area of study is what Pratt (2006) refers to as "Identity Work" where the identity construction process focuses on how individuals construct their own identities in "social contexts" (Baldwin, 1986; Bruner 1990; Gergen 1991; Dickie 2003; Ibarra 1999; Barbelescu & Ibarra 2008; Snow & Anderson 1987; Sveningsson & Alvesson 2003; Van Maanen 1997). It is in this area that identity

is seen as a "project" rather than a "blueprint" with "the experience of agency" being at the very heart of the experience of the self (Gecas 1986). Our cases exhibit four very different "projects" of identity development.

Much of the research in identity work is based on the role of narratives in the creation of the self (Kirby 1991; Bruner 1990, 1986; Czarniawska 1997; Barbulescu & Ibarra 2008) and this study has added to this field of research, in particular with respect to seeing identity as a project, not of searching for a stable identity. Throughout the cases of the Quants, identities are perceived as constituted through linguistic acts and practices (Hytt, 2003).

This study, in particular, highlights on how culture, that of the Quants, plays an instrumental role in the identity development of their own projects and how each individual creates and modifies his identity through extensive "sense making" (Schein 1992) and reflexivity (Mead 1934). Unlike Gidden's (1995) approach to reflexivity as a "rational project", where the self has a self monitoring ability, our Quant model of man is one where it s impossible to separate the influence of culture and tradition and the self only responds to itself, whether stable or unstable. Our cases also contribute to a better understanding of how external factors can influence professional identity development. This has not been the focus of most studies that consider usually factors internal to the organization.

Much of the Academic work around identity and organizational culture is centered on general examples of individuals and is applicable to many types of persons. Few studies, like Ibarra (1999) focus on a particular profession, as in her case of investment bankers. This study does not focus on professionals, per se, but highlights a type of individual mentality and as such permits us to obtain very different specific results and contributions to this area of professional identity development which can be applicable to individuals from many professions. I believe this is the first professional identity development study to focus on a type of professional mentality.

Much more research must be done that looks in detail at identity development and identity work (Pratt 2006) strategies within particular disciplines of the professional world. Few studies have dealt with the true ramifications of what an unstable, problematic identity really means and how it affects theories of organizational socialization. In particular, how this identity is influenced by its interaction with others and what this does to the individual's sense of agency within the organization is still an area where much research is yet to be done.

Lastly, since the Economic Crisis of 2008, much literature has appeared on how a type of mentality, very similar to the Quant mentality in this study, has been partly responsible for both the events that led to the Crisis as well as for its propagation. This literature focuses on the rational, reductionist thinking of these professionals for whom Economics is very much like a science, where everything is about regression analysis and more data means more certainty (Blyth 2010, Taleb 2007, Fox 2010).

This study is one of the first examples of ethnographic research focusing these types of individuals and in particular, on the processes of identity development, which can result in this type of mentality, sheding light on how difficult moving from this mentality can be for the professionals involved. Much more research needs to be done in understanding how these mentalities come into being and the adaptation challenges involved.

10.9 Conclusions & Practical Recommendations

So why is it important to talk about Quants and their identity development? How prevalent is this particular representation of quantitatively trained professionals, with a fairly closed mind, among our organizations today and how difficult is for them to become more flexible? And should we care? Should we train them better before and during adaptation? Are there any practical recommendations for management that can be made from this study?

This study makes the case for our main research question very firmly, the identity development of quantitatively trained professionals, exhibiting a fairly closed mentality, has a direct impact on their adaptation within the organization as well as in their subsequent performance.

The Quants in this study are representative of a type of mentality, which, in varying degrees is very prevalent in today's organizations. Many professionals entering organizations from technical disciplines exhibit Quant like traits as newcomers and can sometimes struggle in their adaptation. Managers are however unaware of sometimes how difficult it can be for these Quants to adapt to the organization and many times this experience is exasperated even more as Managers continue seek out quantitative profiles without an understanding of their professional identity developments.

The first sub-question pertaining to how difficult it is for Quants to change their mentality is also firmly established throughout most of the cases where in each case, the individual's transformation is usually long and emotionally charged. Turning a closed mentality, into a more flexible one, is no simple socialization exercise in the cases analyzed.

Finally, with respect to my second sub-question, on what is presently done in terms of training, before and after Quant for adaptation, as well as the role of managers in facilitating it, the study shows little sign of either actually happening today.

Little, seems to be done during the academic training of these technical disciplines to prepare students and young professionals for the reality of organizations which are increasingly complex and require more "open minded" mentalities and skill sets. In a business world, increasing complex, diverse and multi-faceted, Academic institutions must take on greater responsibility to prepare individuals, especially those in danger of wearing "intellectual blinders" (Toulmin 2001) upon arrival into the organizations.

Many companies today also put on extensive training programs for their new employees. Most of these, however, are only focused on the quantitative and hard skills of their newcomers, which are associated with particular specializations. More must be done to remove the "intellectual blinders" (Toulmin 2001) associated with specializations in the disciplines as this has a tendency to create and reinforce rigid mentalities.

A practical recommendation is that we need ways with which to better identify mentalities that are fairly closed and could pose adaptation challenges within the organization. While in no way am I implying that all closed minded professionals are necessarily Quants, but this study of Quants does shed light on how difficult it can be to be identity and then adapt, Quants or individuals exhibiting closed mentalities during employment. It also attempts to show how closed mentalities can pose serious challenges to organizations where employee adaptation is a critical part of enhancing performance.

More should be done to try to understand how the academic training and professional identity development of individuals can condition their adaptation capabilities. In my case, my boss had had a keen instinct for type of mentality I had, and he tried to deal with it accordingly. More should be done to encourage this sort of management guidance in adaptation. Management programs could be tailored to types of mentalities as often it takes years to "unlearn" some of the fundamental biases one can enter the business world with.

Much can be done in terms of designing training curriculum to prepare individuals, Quant or not, for dealing with the levels of ambiguity and soft skills necessary to succeed in an increasingly service oriented work environment today. The role of Rhetoric must be de-mystified and legitimized in both Academic as well as organizational settings. Our Quants, in particular could have used a good introductory course in Rhetoric as they were sent off from their Academic institutions into the real world.

In the recruitment of staff, Management should attempt to take on a greater responsibility for understanding more about the professional identities and mentalities of the future workers. This does of course require understanding more about your own mentality as manager. How much of a Quant are our managers today?

For many managers, having an open, flexible mentality and being able to excel in Rhetoric at work, especially in highly knowledge intensive services, is associated with more income and power, especially if this translates into successful business development efforts. Shouldn't we be giving everyone a fair chance?

Today more than ever, companies require broad-based thinking that can deal with the complexities of globalization and new business models but unfortunately many of our disciplines are becoming more analytical (Kagan 2009), forgetting the human factors that should be influencing decisions on strategy and development. This is happening in particular, in the hard sciences but also increasingly in others like medicine where many people are now getting medical degrees not to practice medicine, but to work in technology and research (Demello 2011).

In much of Management and Finance today, regression is truth. If you can show that things are correlated, then with an average explanation, you can make the argument for causality. While maybe not immediately apparent, this is the Quant mentality that this study has focused on, so there may be more Quants out there than you think.

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