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COGNITIVE REPRESENTATION OF EMPLOYEES CAREER POSSIBILITIES IN A BELGIAN PUBLIC COMPANY

ABSTRACT

In order to understand the tools used by the company employees to make a career, we opt for a method centered on the intellectual plans of the respondents concerning their perception of the career opportunities. The cognitive map, setup by the researcher, allows schematization of the interviewees' representation of reality.

Our study examines career opportunities as perceived by the public enterprise workers on the eve of a major restructuring. We wish to answer the following questions: How do executive and non-executive employees from a public enterprise, as seen through cognitive maps studies, see their chances for a career?

Key Words: careers, public companies, human resources management, cognitive map

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INTRODUCTION

The public company employees benefit from employment conditions because they guarantee them work for life, a contract that connects employees to the State and makes them subject to specific regulations, thus ensuring protection from unemployment. Career potential within public companies depends on how human resources use management practices, as well as on regulations to ensure equal opportunities and interpersonal relations.

Work relationships as opposed to those in the private domain, are addressed by the European legal system, and evolve together with the changes in the status and structure of public companies. The wage-earners, widely called civil servants or statutory workers, are considering their career within one single enterprise. They strongly adhere to the enterprise culture and stick to the equal working conditions, they prefer a strong statutory system in order to prevent favoritism or discrimination. Internal promotions are based not only on the office advance, but also in the salary related to the length of service or to the success in the oral or written test based on the general knowledge.

Public companies mostly emerged after World War II with the aim of reconstruction in order to reassure public service to the whole population. Often being in a position of a monopoly, nationalized to fit the interests of the State, these enterprises create work environment in various sectors, taking care of such matters as delivery of passengers, electricity, telecommunications or group social services such as retirement or health. Resting on needs management linked to the common interest necessities, they are united according to Christian Batal into “administrations, local or territorial communities, publicly-owned establishments, hospitable public service, public service enterprises as well as private code structures responsible for public service mission” (Batal 1997). Our study examines career opportunities as perceived by the public enterprise workers during privatization phase. We would like to respond to the following research questions:

How do executive and non-executive employees from a public enterprise, as seen through cognitive maps studies, see their chances for a career? What means are used for a career? What are the favorable factors for career development?

In the beginning, we present literature that discusses public companies and promotion options to clarify methodology and to obtain results which are presented in the last chapter.

LITERATURE ON PUBLIC COMPANIES AND CAREERS

Career Management in Public Companies

Operation of public companies, statutes of which have been thoroughly studied, has been underlined in the literature which discusses New Public Management. Throughout twenty years public companies have been re-adopting the management tools to be able to respond to new European regulations and to resist indirect or direct competition imposed by the opening of national markets to foreign enterprises. This emerging model has been designed in accordance with an appeal from the liberal bureaucrats, thoroughly changing internal organization, creating new opportunities as well as constraints for the employees. Inverse logic is observed within one and the same structure, where liberalizing bureaucratic model and decentralizing power coexist (Giauque 2003, Emery and Giauque 2001, 2005). These public companies, which possess particular characteristics according to their political dimension or company culture strictly aligned to the notion of public service, are anxious to modernize their internal operations. According to Giauque (2003), they set objectives, which are created according to the 5 following criteria:

- Improvement of services,
- Modernization of production processes to become more flexible and to be able to adapt to the rapidly changing market environment,
- Clear identification of objectives by describing them in contracts and setting feasible strategies, especially financial ones, to achieve them,
- Redesign success criteria,
- Compensate for the new measures.

Structure modernization equally brings about thorough changes in the internal culture, forcing employees to proceed with a logic tied more to technical details rather than to more commercial reasoning where the client takes central place. Gruening (2001) describes New Public Management in an article which has appeared in the International Public and Management Journal in 14 points, the main principles of which are as follows:

- Desire to install budget restrictions, more strict and pertinent management
- Administrative responsibility to improve productivity
- More commitment to client relations
- Production decentralization
- Planning and management strategies
- Implementation of the increased competition

- Performance evaluation
- Management style modification
- Introduction of the individual incentive tools within the management system
- Separation between the state and public company policies.

While facing structure transformations, the workers confront new limitations at the same time benefiting from the emerging opportunities. Giaque (2003) studied dual tendencies that arise during operation of the organizations under 5 different angles: institutional dimension, administrative management, authority, symbolism as well as egalitarian aspect. Globally, the new structure presents more opportunities for action, focusing on the quality of the services proposed to the clients to better respond to their needs, increase in the amount of collective work, teamwork, relations between the employees themselves becoming more flexible, informal and less official. Researchers mention stronger autonomy of the participants along with increasing individual responsibility, widening scope of skills in more complex operations, emergence of the new tasks, while the employees experience stronger ties to their teams and groups. At the same time, new stumbling blocks appear such as emergence of new social and political actors which come in the form of shareholders, for example, which leads to exposing employees to more pressure, while measurement of individual performance becomes more systematic, administrative tasks expand, the gap between the managers and non-managers increases, employees feel attached more to their team rather than to the company, and emergence of competition between the teams creates coordination and cooperation problems within this organization.

Public companies put pressure on their employees, especially in quantitative terms, to diminish their strength, leading to irreversible changes in relationship between the employees and their organization. (Emery and Giaque 2005).

Internal promotions, which have been historically strongly regulated and based primarily on contest results or certain seniority, fit perfectly the independent mode of operation centering on recognition and evaluation of skills.

Career Management

The literature that describes careers also underlines such factor as change in mentality. Career is defined as “professional evolution within an organization given in a broader way,

as a series of experiences varied throughout a lifetime” (Bird, Gunz, and Arthur 2002, Baruch and Rosenstein 1992, Guerrero, Cerdin, and Roger 2004).

Traditional career model rests basically on academic background as well as on the employer’s wish to boost employability of the worker or to suggest promotion opportunities. (Kuijpers and Scheerens 2006). The new model, which was developed, in particular, by Arthur, Inkson, and Pringle (1999) suggest greater commitment by an individual along the way of his professional journey. It is characterized by greater mobility, vertical as well as horizontal, career equally envisages, apart from organization, more frequent changes of tasks to accomplish, more dynamism observed in the work environment and finally, shift in the role of employers related to the careers of their employees. Some researchers tend to measure employee’s competence by an ability to make a career by determining a group of skills necessary for the employees to successfully pursue their careers, without mentioning specific skills required to retain their position (Kuijpers and Scheerens 2006). They assemble them into four categories:

- “reflection” career defining capacities of agents to show their knowledge and motivation,
- career called “work exploration” to define individuals working out options that are offered at the job market,
- “career control” to identify opportunities envisaged by the employees to increase their field of competence as well as their employability,
- career called “self presentation” to present those employees who want to show widening of their scope of work to foster their potential.

The notion of career, which was defined by some other researchers such as Hall (1976) or Arthur and Lawrence (1984), includes a chain of attitudes, activities or behaviors connected with the work roles existing throughout the whole life of a person. At the same time it is viewed under an objective angle (external to individuals) and subjective (internal to individuals). Objective aspect pertains to a career reality by studying discernible activity such as an analysis of behavior or events that characterize professional life of an individual. Subjective aspect rests more on observation of particular details, such as study of attitudes, orientations or perceptions of actors throughout their careers (Stephens 1994).

Other theoretical works rest on various stages overcome by employees throughout their careers, among which four phases have been identified (Dalton and Thompson 1986):

- Phase 1: “Apprentices” or beginner employees. These employees are limited in their responsibility but also in their scope of work, they should respond to the specificity of their position by mastering all the adequate skills. Their ability to help others as well as their will to comply with directives is well appreciated. Being strongly dependent on their supervisors or mentors, they are limited in terms of their networking to their peers. They have few independence during project implementation and bend to the decisions of their director or hierarchy.
- Phase 2: “Independent Contributors.” After they have taken responsibility for some part of a project which had been determined *à priori*, their relations with their mentors as well as their hierarchy are different from those of the beginners. Despite the fact that their social network consists primarily of their colleagues, they are communicating more effectively with their superiors. Nevertheless, the peers occupy an important professional place because they constitute an alternative to the relationship maintained with the mentors.
- Phase 3: “Mentors.” Responsibility of this type of employees is not limited by their proper proficiency and because apart from their professional mission, they support individuals that belong to phases 1 and 2. By holding position of a psychological supporter, they position themselves as counselors in the career evolution of their “protégés.”
- Phase 4: “Directors.” This category includes a wide range of employees and is not limited to managers, but also comprises researchers, heads of departments and other people in charge. Their influence on strategic decisions is significant. While they are traditionally detached from the people in other hierarchical levels, their social network spreads out far beyond the company limits and is aimed at locating contacts for their professional activity. Their mission dwells on the analysis of their environment, strong and weak points of their company and optimization of their company’s strategy. They take up responsibility to recruit employees that would help them accomplish their strategic goals.

These authors think that the employees do not apply their entire experience to evolve according to the four above-mentioned phases. These categories do not represent any age

group or life stage in particular; it appears that certain individuals regress or do not follow the stage logic (Dalton and Thompson 1986).

The literature clearly defines different career potentials as well as the strategies depending on the place occupied by the employee within a company. Dalton and Thompson (1986) underline that in essence, each individual goes through a period of transition throughout his or her career. The wagers depend on his or her position, which at times generates opportunities as well as exigences. They pinpoint the fact that successful transitions are perceived by the actors as important moments in their career whereas failing transitions have more negative repercussions for the individuals themselves as well as their organizations. Career largely depends on the capacity to adjust to regulations of organizations, to professional environment, as well as to the necessities directly linked to the phase they belong to. Various adjustment models are listed in the literature (Lavalée 2006):

- Duplication (replication). This configuration envisages few individual or professional changes.
- Assimilation designed for slight change of position.
- Determination describes important efforts to upgrade the field of competence with a matter without provoking perturbations in the identity of an employee.
- Exploration designed for significant personal changes at the same time taking into consideration his or her role and identity.

Professional career implies a period of adjustment for the employee, with the latter depending on four independent variables. These “role requirements” determine the way in which individuals perceive their ability to modify requirements of their position and expertise that relates to evolution since the old position to the new one by “occupational socialization” or the level of influence on the old position, the “desire for control” or an ability to persuade the follower of the activity and, finally, the “personnel change” or evolution of an individual (Lavalée 2006).

Internal Promotions Management

The notion of internal promotion is more particularly connected with the internal opportunities accessible to employees to initiate their careers. As we have observed, the state employees take benefit from the privileged employment conditions including assurance of non-breaching of their working contract that connects them to their

employer, which is the State, guaranteeing job security, and protecting them from unemployment. The study led by Stephens (1994) does not rely on such type of employee because the actual environment, which is characterized by dismissals and forms of involuntary career transitions, forcing Americans to change their career less times within their lifetime, does not reflect the employment conditions of the state employees.

The notion of career transition considered by Louis (1980) can lay out two forms: inter-role and intra-role transitions. The first implies that the existing office is changed by the other in a significant way whereas the second, more subjective, happens when the employee takes a new orientation, which is different compared to his preceding position. This author has set up a typology of career transitions for the objective and subjective approaches. The first typology, objective, refers to five different factors: newly hired workforce returning to their previous organization, transitions within the organizations, transitions between companies, transitions from one profession to another and the outgoing labor force. The second typology, centered on the subjective transitions, includes four aspects: adjustments within offices, adjustments between different offices, promotion from one position to another, career all along professional life. Louis (1980) thinks that the intra-role adjustments imply modifications in the orientation of an existing role over time at the time of holding the office, the latter (Meglino, De Nisi, Youngblood, and Williams 1988, Suszko and Breugh 1986) should come with decrease in work satisfaction, in confidence, commitment in the organization and the ability of the agents to adapt to the new tasks that had been confided in them, these elements stirring a massive turnover. Our study relies more on the intra-role adjustment modes rather than the inter-role ones because we would like to know the existing relations based on the perceptions of the respondents, between their career potential and their organizational commitment as well as the impact on their skills.

Literature suggests (Stephens 1994) relationship between the previously described stages concerning career stages and the level of career adjustment. In the case of important adjustment and the newness of the office, the employees are located between stages 3 and 4 of their careers. When an employee finds himself on the weak level of adjustment but has an advantage of newness in his office, he is placed in the career stage 1. When an individual possesses high potential but chooses not to use the career prospects, he is placed into the career stage 2. Career regression occurs when weak adjustment level is combined with insignificant evolution in a professional way.

Our study is particularly interested in the existing differences between executive and non-executive employees within one and the same organization. The literature assumes that technicians use specialized skills whereas managers or executives develop interpersonal relations along with their communication potential (Mainiero 1986). Our model attempts to find out if social connections are practiced to make a career by executive employees rather than non-executive employees and technicians.

The notion of career ceiling should also be approached in this study because public companies undergo crisis in their workforce management concentrating more on their restructuring rather than promotion of their employees. The ceiling is defined as “the feeling by a person that he is locked and that he cannot develop any more of acceptance of a fact that he remains for a long time in the same situation” (Roger and Tremblay in Guerrero et al. 2004). This feeling is born out of objective information, such as “seniority, changes on the hierarchical remuneration level” (Veiga 1981, Roger and Tremblay in Guerrero et al. 2004) or as a result of more subjective aspects, such as “assessment of the future development potential” determined by the employees (FERENCE, Stoner, and Warren 1977, Roger and Tremblay in Guerrero et al. 2004). We determine whether a failure to implement a career plan has repercussions on the organizational commitment of the employees.

The literature that describes the new works on the new forms of public organization and careers allows us to address the following research questions:

What instruments are used by the employees to advance a career within a single enterprise? What are the favorable factors for a career as defined by the employees? How do the employees view their career potential? How do the employees use their instruments to advance their career?

Now we proceed with our research methodology and further we propose our results.

RESEARCH METHODOLOGY

Theoretical Context

We opt for the “constructivist” model of research because we stick to the postulate that researcher does not work directly with the “reality” which existed before the study took place but rather with a “depiction of actors within a company which is constructed out of their proper perceptions” (Savalli and Zardet 2004). In quantum mechanics, the fact of observing a particle changes the state of this particle. Same way is in management

science: the study of reality modifies it. Epistemological principles of this paradigm are as follows:

- “Representability: knowledge does not reflect ontological objective; it is related to our picture of the world constructed by our experiences,
- Constructed universe: science does not seek to discover the laws of nature,
- General argumentation: contemporary scientist is a designer-observer-creator,
- Intelligent action: invention or elaboration of an action that would propose an “adequate” or “convenient” process between the situation being perceived and a plan conceived by the system” (Savalli and Zardet 2004).

Management science is a project of knowledge, the aim of which is to reconstitute representations “understandable of the interventions of the actors within organizations” (Martinet 1990).

The qualitative approach is usually based on the individual’s interpretation. We aim to obtain a comprehensive target focusing on the individuals in order to understand career opportunities in public companies. The qualitative approach is defined as “a discursive process of testimony, experience or phenomenon reformulation, explanation or theorization.” It does not need any quantification to be valid. However, it can be used in order to seek out an aim of discovery and sense construction (Paillé and Mucchielli 2003). This qualitative research process tries to understand the aim and the meaning of some events in concrete situations (Wacheux 1996). These methods offer a “wide range of interpretation techniques aiming at describing, understanding the codes and translating them” (Savalli and Zardet 2004: 70).

Our reasoning is abductive; we want to extract from our observations a reconstruction of the reality to elaborate new answers which will be advisable afterward to test and to discuss. The objective of this logic is not to establish results within universal vocation but to establish an understanding of a given reality. The proposed results will be demonstrative because the researcher does not want to establish constancy; he just attempts to explain a phenomenon (Thiétart 2003).

Data Gathering

We proceed with our case study, conducted in the Belgian railroad company. This inquiry favors a reconstruction of the reality of the employees in this company related to their conditions of internal promotions, not in a more precise way than the situation

described by the actors, but establishing categories authorizing a more global understanding taking root in a more theoretical perspective (Savalli and Zardet 2004).

We gathered our data with the help of semi-guided interviews that had been conducted with about thirty employees of the Belgian Railways (SNCB). This technique allows to adapt a comprehensive approach, the principle of which is to view individuals as “active social producers and possessors of important knowledge, whom it is necessary to extract from the inside” (Kaufmann 1996). Interview is defined as “technique designed to gather, within analysis perspective, the discursive data that reflects mental universe which individuals possess, either consciously or subconsciously” (Thiéart 2003). The idea is to create relationship of trust during the interview, based on the equality, in a manner which allows gathering relevant information without the feeling of constraint to respond to questions on the part of the interviewee (Labov and Fanshel 1977, Blanchet and Gotman 2001). The interview is a meeting of two interlocutors who are subjected to the uncontrollable contingencies and are well aware of its discursive nature, while reconstruction of reality happens gradually over time with a series of interviews. This data gathering technique offers two following principal objectives:

- Discover the actors perception of their everyday life,
- Collect description that would make up management practice (Blanchet and Gotman 2001).

First of all, before the meeting with SNCB employees, we have created a question grid designed to facilitate good progress of the interview and avoid deviation from the central topic of our study during the interview process. Editing of this interview grid is only a guide, making researcher confident and triggering dynamics during an interview. At the same time, the questions should not be posed one after another which may lead to missing some important data or topics which should be confined to the amount of three (Kaufmann 1996):

- Professional career by insisting on the processes of internal promotions,
- Weight of the interpersonal relations in the career,
- Importance of the academic course in career.

Presentation of the Means used to Analyse Data

We opt for a reflective method centered on the intellectual plans of the respondents concerning their perception of the career opportunities. Audet, Bougon and Cossette

(2003) started their work by saying “an image costs a lot of headaches,” they define cognitive map as “graphic representation of mental representation that researcher creates in order to group together discursive representations formulated by the subject from his own cognitive representation, regarding particular object.” The latter raises two types of elements:

- Variables, where one finds naming of constructs or variables,
- The links which connect various enlisted variables (Thiétart 2003).

Administered in three stages – collection of data, coding and analysis – the cognitive map does not limit itself to graphic representation of oral discourse collected in the interview process; rather it is important for understanding and analyzing the inner thoughts of the respondents, with the latter being at the center of their actions (Audet, Bougon, and Cossette 2003, Thiétart 2003). Usage of this management tool seems to belong to Tolman, who studied behavior of a rat placed in a maze to figure out its ability to develop “cognitive map” of its environment (Tolman 1948, Audet, Bougon, and Cossette 2003). Coding consists of making the units in the body of analysis, while relations between the two variables are united by a link, it is suitable to define the nature of the variable as well as the link to further allow to unite the variables and similar relations (Thiétart 2003). For Audet, Bougon and Cossette (2003), “schematization is setting of a discourse from the point of view of an interlocutor. To become mature under certain reality R, setting of a discourse is made for an interlocutor or a group of interlocutors B in the situation of data exchange.” In our study, we aim to represent the life of employees as identified by an intermediary by semi-guided interviews in order to try to reconstruct their reality. The idea is to collect exact wording expressed in their “natural” language (Grize 1989) to obtain representative results in a logic of thought which was summoned from this “natural” author. Although minimizing the control of discourse by the respondents, this methodology allows to conceptualize mental construct by identifying “logico-discursive” mechanisms. After collection, the latter are saved, transformed and reduced (Audet, Bougon, and Cossette 2003). During the construction of cognitive map, the researcher should identify the variables and clarify the links to further unite the similar variables. The first stage consists of identifying the elements by the person interviewed such as influencing or influenced variables, understanding the degree of variation of an element to identify its interaction with other characteristics, such

as, for example, connecting stable budget work with expenses (Thiétart 2003). Wrightson (1976) and Huff (1990) propose to stick to three following forms of questions:

- “Has A preceded B over time?”
- “A preceded B logically?”
- “Is A necessarily before B?”

The second stage in the construction of a cognitive map lies in the elaboration of the links connecting various variables. Within the map framework of causality, we look for the following links (Thiétart 2003):

- The negative influence link is represented by a hollow arrow (\rightleftarrows). It represents cases where respondents consider that variable A will have an opposite impact on variable B, thus for instance, the higher the career opportunities are, the lower the organizational commitment will be.
- Influence link equals to zero, schematized by a line (—). There is no interference between the different variables, therefore, even if the career opportunities increase, there will be no impact on the organizational commitment.
- Influence link is positive, indicated by a solid arrow (\rightarrow). It schematizes cases where respondents consider that variable A will have a positive impact on variable B, hence, the higher the career opportunities are, the stronger the organizational commitment is. In the same way, the fewer the career opportunities are, the lower the organizational commitment will be.

The cognitive maps authorize the construction of ways or loops that is “roads connecting one variable to another by way of the intermediary of one or several other concepts” (Audet, Bougon, and Cossette 2003). When all the links are positive or if the number of negative arrows is even, the effect of the initial variable on a final variable is positive; on the other hand, in case if the path contains a negative link, a hollow arrow, or an odd number of negative links, then the indirect effect of a variable on the final will be negative (Audet, Bougon, and Cossette 2003).

We opt for the construction of compilation of maps since they need few interactions between the actors. This process suggests the use of tools to compare the different point of views of the interviewees in order to find out a common point of view and thus to aim at setting up a collective model.

These collected elements allow us to conduct a more objective study, based on these public company employees’ personal experiences. We can then analyze individual career

opportunities as perceived by the employees, as well as understand the career opportunities offered by the organization through using the compilation of cognitive maps.

APPLICATION TO THE SNCB

Introduction to the SNCB

Our analysis is based on SNCB, or National Society of Belgian Roads. We study management processes in human resources sector in a public company of bureaucratic type. Further we will examine methods of data collection and we will finish with presentation of results.

Created in 1926, SNCB is an independent company under Belgian law, having a turnover of 2.33 billion euros in 2003 and a rail network extending to 3,521 KM, has business in passenger delivery, maintenance of rail network and transportation of goods.

SNCB staff includes two types of employees: statutory and contract workers. Different regulations are applied to each type of staff. The permanent employees represent the majority of staff; they belong to “the Staff Position” at the company. The contract workers fall under the Belgian law governing the contracts of employment from 03.07.1978.

SNCB is a company with staff comprised from Flemish and Walloon population of Belgium.

Employees in this company are divided according to their ranks. Their ranks correspond to their positions within the company’s hierarchy. Rank distribution is organized in the following way:

- Qualified employees with higher education diploma (experts, managers) fall under the ranks between 0 and 3 (presented in Appendix 1).
- Other employees (workers, lower management personnel) fall under the ranks between 4 and 9 according to their diploma (presented in Appendix 1).

Introduction to the Topics

We have established cognitive maps for each SNCB employee and juxtaposed them to reveal the principal links expressed by the majority. Various topics will be approached during the interview of which the most important are:

Network: The notion of Social Network reminds that of the Social Capital, which is defined as “a group of social qualities that an individual possesses, charisma, the human contacts..., everything that enriches that individual’s contacts with other people” (Glaeser 2001). Social capital is measured in terms of number of “contacts” that a person has. A contact is defined as another actor with whom the person under study has direct relationship (Coleman 1988). Social network entangles a number of social relations between individuals, and at every moment, there is a network in which individuals are more or less connected according to their priority level of exchange and emotions that accompany them (Burt 2001). We will try to determine the influence of social network on the level of competence of a respondent.

Academic Background: This notion simply reflects the level of scholarly education of an employee. We will try to find out whether direct link exists between the academic diploma and skills used at work.

Length of Service: By length of service we understand the number of years that have passed since the first day of work of the employee for the SNCB. It is necessary to understand that there is a link that exists between the number of years spent at the company and the employee’s skills by studying relationship between the length of service and organizational commitment and, finally, the influence of the years spent in an organization and the importance of social network.

Employee’s Competences: In human resource management, competence is summarized as a unity of two kinds of knowledge: a how-to-do (work experience) and how-to-be (individual behavior) knowledge. Le Boterf (1995, 1997) defines this as “carrying out mobilization or activation of various types of knowledge, in a given situation or context”. He distinguishes different types of competence: theoretical knowledge, (understand or interpret), procedural knowledge (how to proceed), procedural habits (know how to operate), experiential knowledge (how to behave), social knowledge (know how to perform and how to behave oneself), cognitive knowledge (know how to treat information, think, and understand). Gilbert and Parlier (1992) define competence as “a group of such elements as knowledge, ability to act and structural behavior directed to achieve one goal in one type of a given situation.” We attempt to discover relationships between different types of knowledge and organizational commitment, between competence and extrinsic motivation and, finally, between knowledge and good operation of the site (site health).

Site Health: The interviews have been conducted before restructuring and so this part aims to understand how employees perceive the perennality of their position in the future. It is necessary to identify the existing link between the perennality of a job and extrinsic motivation.

Extrinsic Motivation: The notion of motivation, according to Vallerand and Thill (1993) is defined as “hypothetical construct used to demonstrate internal and/or external forces that produce starting point, direction, intensity and behaviour.” Over 140 definitions of so widely used variable have been counted. Two forms of motivation have been defined: intrinsic motivation which arises to satisfy personal need or pleasure – in this case this kind of activity is conducted voluntarily without any other goal than the interest for the job. The second form of motivation is called extrinsic motivation. According to this form, a subject finds its interest in behavior of with the aim other than the work for a reward or the wish to avoid a penalty. We choose to retain this definition to show the interest of an employee to work to obtain an internal promotion, evidence of reward type given to the employee by the company. We identify the relation of the degree of extrinsic motivation to the degree of mobility as well as to the organizational commitment.

Mobility: Mobility is a central notion in the human resources management (Roger and Ventolini 2004), because “it develops the capacity to change, reduces the costs of adaptation and allows to prepare solutions of the unforeseen circumstances of the future” (Mignonac 2001). This definition allows to understand the knowledge required by the employees for their future in terms of their career. Other definitions are also suggested to understand this variable such as of Cadin, Bender, and de Saint Giniez (2003) reminding “change in enterprise or establishment.” We would like to use the following definition that covers “change of nominations in an organizational structure” (Rosenbaum 1979, Galambaud 1991, Vatteville 2003) and understands relationship between mobility and organizational commitment.

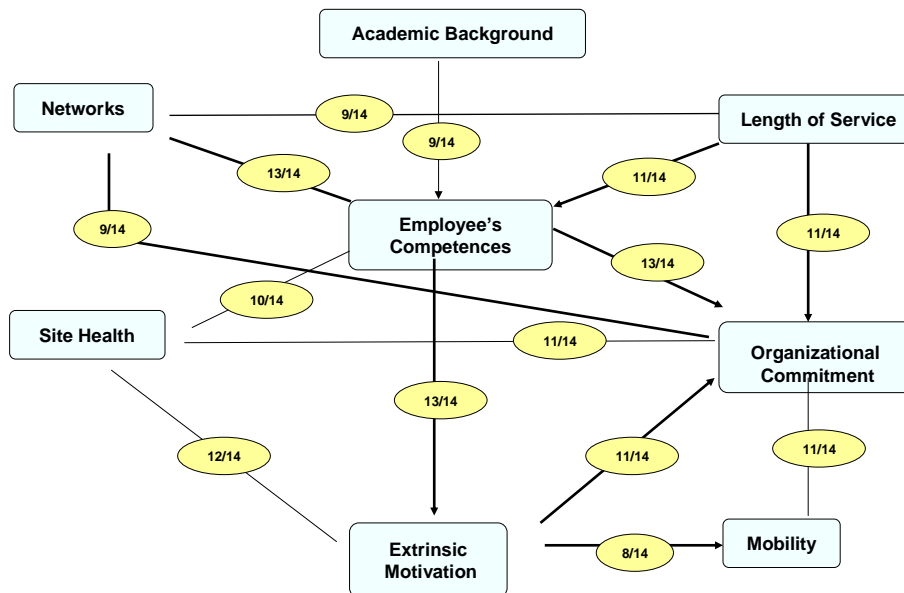
Organizational Commitment: This variable is related to the link of an employee to his or her job. It includes a psychological attachment of an individual to the organization. This notion reveals two forms: the talk is about a calculated or normative commitment, emphasizing the loss that an individual encounters if he or she has to leave the company, and affective commitment, which is defined by the link of affection that connects an employee to his or her organization. It points out identification of a person within the

organization (Thévenet 2004). It speaks about understanding the link between organizational commitment and site health as well as between organizational commitment and social networks.

RESULTS ANALYSIS

Our study is focused on two categories of personnel – the non-executives shown in Figure 1 and executives featured in Figure 2.

Figure 1: Cognitive Map of SNCB Respondents, Non-Executives

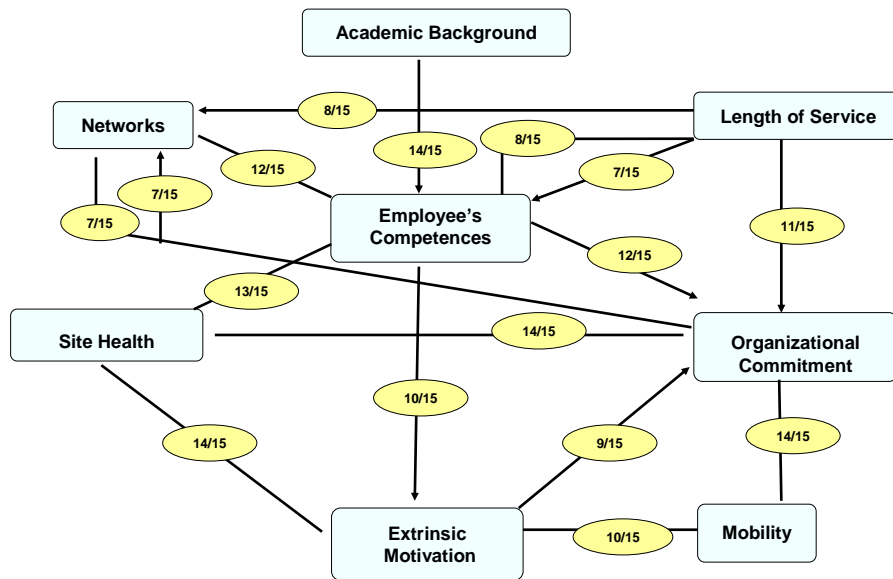


Neutral link: \square ; Positive link: \rightarrow
 Topics are in the rectangle. The number of respondent agreed with the link is indicated in the yellow oval.

Observation and Explanation of Positive Links

Positive links, identified in cognitive maps by a solid arrow (\rightarrow), express a relation between two variables, for example variable A and variable B. Hence, if variable A increases, variable B increases as well, and if variable A decreases, variable B will also decrease.

Figure 2: Cognitive Map of SNCB Respondents, Executives



Analysis of positive links identified by the executives

SNCB executives establish positive links between the following variables:

- Employee Competences and Extrinsic Motivation (10/15).
- Employee Competences and Organizational Commitment (12/15).
- Length of Service and Organizational Commitment (11/15).
- Academic Background and Employee Competences (14/15).

Employees consider their extrinsic motivation, which is represented by their aim for internal promotion, to depend on their level of expertise. This relation can be described in the following way: the more desire to increase his competence the employee has, the more he wants to be promoted internally, what is in his view a form of repayment on the part of the company. This connection is stressed when an interviewee exclaims “as far as promotions are concerned, I can talk to my colleagues. I have two office managers who work for me. During 6 months, based on their merits, I can offer them promotions” or “In the railroad field, as far as internal promotions are concerned, there are so many tests

to pass, particularly one of them which is called a test of performing very well.” These testimonies show two forms of competence in relation with extrinsic motivation, and we note the knowledge based essentially on the general facts, manifested by a test and how-to-do as well as how-to-be knowledge, illustrated by the first citation, evaluation made by direct superior.

Employees link level of competence to organizational commitment, which is a positive link between these two variables. This relationship is manifested in the following manner: the more important employee’s competence is, the more the former is subjected to higher organizational commitment and the less the employee has a feeling of being competent, the less he feels organizational commitment. This link becomes even more evident when illustrated with the following examples: “The knowledge of how to do is not enough. Passing the knowledge is more important. It is necessary to learn the matter here, a particular matter and it is not like someone teaches someone else how to use a computer. Here it is necessary to know the material. It is necessary to know the way it functions, what to pay attention to” or “I oversee technical documents and I keep these things in memory and I get frequent reproaches that I do not consider security matters. I like continuity in things. When there is a break because the worst took place, they blame me for this. These things are difficult to manage, stiff. I listen well but when there will be loss of life, then what. In this domain here, we are alone. There is no meeting to manage it, there is no meeting. We are alone and it is very important to have any knowledge, any good to make, to react according to the needs of the company.”

Then, the employees link their age with the organizational commitment, this relation declines according to the following formula: the more length of service the employee has in the company and the more his organizational commitment is elevated and conversely, the less the employee worked in the SNCB, the weaker this commitment is. This relationship is illustrated with the following examples: “I am very well there where I am, it is true that I like my work, my position. The problem is, because SNCB is a big corporation and because sometimes people miss things. Nevertheless, there where I am now, I was able to learn quite a lot of things” Or “I like perfection in work so the inconvenient is: I am slower. I think that dealing with security is something very rewarding from a personal point of view. Moreover, you get to know more and more every day. I think that the study of regulation is not a waste of time. From a practical point of view, one can see where the risks are and how to avoid them. In a certain way, your senses are

made keener. Hence, that is the reason why they selected me to become the chief of security; they have probably seen through my work that I was more meticulous than another.”

Finally, 14 executives out of 15 establish a positive link between academic background and employee competences. This relation is underlined in the following extracts: “when we get employed in the SNCB at higher education level, we already are rank 3... due to the diploma... therefore I went through the five-year qualification period to become a civil engineer.” Or “I did civil engineering studies for five years... I incorporated the SNCB as a civil engineer... I have started in what we call “execution”... after being regularized, which means after one year of training session, I became a department manager for a year... there were TGV works to be carried out in a station and they asked me to be in charge of that.” These two examples show that academic background is a key condition to become an executive. For the company, the diploma is a proof of competences; therefore, the agents are ready to take on responsibility positions, as shown by the second quotation. Moreover, depending on the university diploma, different careers are offered to the agents, as explained by an employee saying: “I have been working for the company for 22 years, and I am still an industrial engineer. This means that I have passed the exam of “the good” and of the “very good” in the course of my 22 years in the firm. I have a civil engineer colleague, who became assistant chief after 10 years in service. I also have an industrial engineer colleague who had to wait 25 years to become assistant chief.”

Analysis of the positive links identified by the non executives

The non executives establish positive links between the following variables:

- Employee Competences and Extrinsic Motivation (13/14).
- Employee Competences and Organizational Commitment (13/14).
- Extrinsic Motivation and Organizational Commitment (11/14).
- Length of Service and Organizational Commitment (11/14).
- Length of Service and Employee Competences (11/14).
- Academic Background and Employee Competences (9/14).

Employees of this category consider their extrinsic motivation, which is represented by their aim for internal promotion, to depend on their level of expertise. This connection is stressed when an interviewee exclaims “finally, I would say that one has to get involved

in the internal promotion process, it needs a lot of training time, after the working hours because I am training after work. I would say that the training sessions are very interesting. Some people don't see the point in following these sessions but I do think they are interesting. I don't regret learning these subjects." Or "I am now working as an assistant head of office. When I compare my work with my colleagues', I realize that I have much more responsibilities. I am looking forward to passing another exam."

Employees link level of competence to organizational commitment, which is a positive link between these two variables. This link becomes even more evident when illustrated with the following examples: "Yet here, I am the one in charge of almost everything. I am still a fitter but I am almost managing everybody, I say ok today let's do that, even the electro chief comes to ask me what is to be done during the day. I have been in Brussels for 25 years so I am in the know. As far as I am concerned, if I did not have any chief, it would be the same, I am autonomous in my work."

The employees also find a positive link between the extrinsic motivation and the organizational commitment, the relation expressing itself in the following way: the more the employee benefits or wishes to get internal promotion, the more he feels involved in the organization and conversely, the less he has the feeling that his extrinsic motivation is satisfied, the less he tries to be involved. This link is transcribed in the following way: "as far as I am concerned, I wish to evolve within the company, I want to make a career in the SNCB."

Then, the employees link their age with the organizational commitment. This relationship is illustrated with the following example: "In fact, when I started in the SNCB, I never thought I could go that far, having so little academic background. I never thought I'd achieve better than to become a chief tracklayer... I have had up to 100 agents working for me, now, I have 32. And all this is supposed to run smooth, day after day. I am a manager."

The employees establish a positive link between the length of service and their competences, thus the longer the individual worked in the company, the more he values his skills and abilities. The following quotation illustrates this relation: "I am a self-made man; I did not use any books or computer to learn what I have learnt. It wasn't easy. It is also interesting because when you create a service, you can see how it works from A to Z. It was like a challenge. So in fact, in 25 years, I have done a lot of different things."

The last relation, expressed positively, concerns the academic background and the competences of the employee as the more the employee is qualified the more he is able to master new skills. This relation is underlined in the following extract: “the problem with rank 4 is that the rank 3 of today is a university rank. That already makes all the difference. Well, it is not completely true what I say, there are people who get to rank 2 while they entered at 14 years in the SNCB. They made a career in the company. Ultimately they are smarter; it is them who will have the best pensions. That costs less money for their relatives. On the other hand, that takes time but as they entered in the SNCB as young people”.

Comparative report

The executives and the non executives establish positive links between the following variables:

- Employee Competences and Extrinsic Motivation (10/15) for the executives and (13/14) non-executives.
- Employee Competences and Organizational Commitment (12/15) for the executives and (13/14) non executives.
- Length of Service and Organizational Commitment (11/15) for the executives and (11/14) non-executives.
- Academic Background and Employee Competences (14/15) for the executives and (9/15) non executives.

Employees of both categories consider their extrinsic motivation, which is represented by their aim for internal promotion, to depend on their level of expertise but they don't express it with the same intensity. Indeed, the non executives almost all agree to establish this relation whereas the executives are more divided. This difference can be explained by the internal promotion process, different from one population to the other, because the non executives have to prove certain competences before being promoted via a formal internal exam whereas the executives' promotions also have to do with interpersonal relations.

Employees link level of competences to organizational commitment, which is a positive link between these two variables. The results are very similar from one population to the other. They both usually program the whole of their working life in a unique enterprise.

Then, the employees link their age with the organizational commitment. The results expressed by the two populations are very similar, because, as in the previous relation, the employees plan to make their career in the SNCB. Therefore, the more they evolve in the company, the more committed they feel in the structure because they understand it better.

The last positive link revealed by the two populations between the academic background and the employee competences attests of a bureaucratic structure based on formal procedures. However, the working environment is different for the two populations. Indeed, during the recruitment process, the executives and non executives have to attest of an academic diploma; the executives' being higher than the non executives'. The executives automatically go through rank 3, and the company will give them missions according to the level and the field of their diploma. Then, depending if they are industrial engineers, civil engineers or consultants, they can be eligible for a specific internal career evolution. The non executives can access any rank, from 9 to 4, according to the level of their diplomas.

Observation and Explanation of Neutral and Negative Links

Neutral links, schematized in the cognitive maps by a line (—), express that there is no relation between the two variables, for instance variable A and variable B, which means there is no link from cause to effect. Hence, if variable A increases, variable B will not necessarily increase or decrease.

Analysis of the neutral link defined by the executives

The executives establish neutral links between the following variables:

- Site Health and Extrinsic Motivation (14/15).
- Extrinsic Motivation and Mobility (10/15).
- Mobility and Organizational Commitment (14/15).
- Organizational Commitment and Site Health (14/15).
- Social Networks and Employee Competences (12/15).
- Employee Competences and Site Health (13/15).

The executives do not express any link between the site health and extrinsic motivation showing then that from their point of view, these variables are independent. Being in a healthy site, whose perennality is not threatened, does not influence internal promotion incentive. In fact, this link can be explained by the status of employees

working in a public company: they do not depend on results and their career is guaranteed within the structure.

The employees also think that extrinsic motivation and mobility are not interdependent. This neutral relation appears in the fact that 10 executives out of 15 do not see any link between internal promotion and potential professional mobility. These results show that internal promotion opportunities depend on other factors such as interpersonal relations.

Executives agree to say that mobility is not correlated to organizational commitment. This relation suggests that mobility does not have any effect on the executives' commitment to the organization. In fact, other factors interfere in their organizational commitment.

Most executives (14/15) do not link organizational commitment to the site health. This relation reflects organizational characteristics leading the employees not to relate their commitment to the health of the site in which they are working. This situation can be explained by their working contract being secured during their whole working life. They consider that the site health depends on other factors than their level of commitment.

Executives cannot identify any link between social networks and the level of competences. Executives have to create a social network during their working life if they are willing to progress in the hierarchy but they do not mobilize it to increase their competences.

Finally, 13 executives out of 15 do not express any link between their level of competences and the site health. This relation can be explained by the SNCB public and bureaucratic structure. The executives agree to say that the site health is not dependent on their level of competences but on other factors.

Analysis of neutral links identified by the non executives

The non executives establish neutral links between the following variables:

- The Site Health and Extrinsic Motivation (12/14).
- Mobility and Organizational Commitment (11/14).
- Organizational Commitment and the Site Health (11/14).
- Organizational Commitment and Social Networks (9/14).
- Social Networks and Employee Competences (13/14).

- Employee Competences and the Site Health (10/14).

Most non-executives do not perceive any connection between the site health and their extrinsic motivation. This relation can be explained by the company's public and bureaucratic structure.

Non-executives express a neutral link between mobility and organizational commitment indicating that their commitment level in the company is not influenced by their mobility, even if the latter is almost automatic in case of internal promotion. The procedure consists for the candidates in choosing from a list the post they wish to obtain, according to how well they ranked in the internal exam. They indicate that this procedure does not interfere with their level of commitment.

Then, non executives agree to say that there is no correspondence between their organizational commitment and the health of the site on which they are working. This relation can be explained by the site's structure, size, and the contract that bounds the employees to the organization, since they generally consider spending their entire working life in the company.

They do not establish any link between organizational commitment and social networks. This relation is not as strong as the others but however, it shows that non executives create their social networks on other criteria than their commitment level.

A neutral link is presented by the non executives regarding the social networks and their level of competences. Indeed, they do not count on their social networks to increase their competences.

Finally, according to the non executives, the level of competences and the site health do not seem to be related. An explanation can be found in the structure of the organization in which they evolve.

Comparative report

The executives and the non executives establish neutral links between the following variables:

- The Site Health and the Extrinsic Motivation (14/15) for executives and (11/14) for non-executives.
- Mobility and Organizational Commitment (14/15) for executives and (11/14) non-executives.

- Organizational Commitment and Site Health (14/15) for executives and (11/14) non-executives.
- Social Networks and Employee Competences (12/15) for executives and (13/14) non-executives.
- Employee Competences and Site Health (13/15) for executives and (10/14) non-executives.

The results obtained reveal that the two populations have similar links regarding on the one hand the relation between variables and, on the other hand, their intensity.

It is possible to say that non executives establish almost the same neutral links than executives except for extrinsic motivation and mobility. This slight difference can be explained by the promotion process being different from one population to the other. Indeed, non executives have to pass a formal internal exam to be promoted, then they have to swap to another service, therefore mobility is almost automatic.

A link between organizational commitment and social networks is pointed out by non executives only. Executives do not see this relation. The two populations face a different reality. Indeed, executives consider that their organizational commitment is not linked to their social networks whereas non executives believe that their degree of commitment leads to a social network. The committed non executives wish to spread their network, and to share relationships with their colleagues.

Analysis of negative links identified by executives and non executives.

Negative links, indicated in the cognitive maps by a hollow arrow (\Rightarrow), express an opposite relation between two variables, for example variable A and variable B. Hence, if variable A increases, variable B will decrease, and if variable A decreases, variable B will increase.

No negative link is listed in both maps presented in figure 1 and 2.

Results of the Research Analysis

Analyzing these cognitive maps allows us the following inferences:

- Although executives and non executives evolve in the same structure, they do not perceive their environment the same way, especially regarding their career opportunities. Hence, even if some links are positively established by the two populations, the results do not highlight the same reality.

- Non executives express more positive links compared to executives. Their internal promotion process implies mobility once they have passed the formal internal exam. Besides, this relation is positive (8/14 between extrinsic motivation and mobility). They link their length of service with their level of competences showing they learn a lot on the site, in the company. They also establish a positive link between their academic background and their level of competences; it points out a particular recruitment process since their qualification level gives them access to a specific rank in the company.
- Executives perceive their environment in a different way; they count more on their social networks, the latter being created according to their level of commitment and to the number of years spent in the company. Their academic background does not really matter since they are almost all recruited at the same rank, rank 3, and then evolve in the structure.

The cognitive map points out that executives count on their competences to climb the ladder of the structure. They seem to belong to Kuijpers and Scheerens' (2006) "career control" group, since they increase their field of competences to be more employable. Non-executives would better suit the "self-presentation's" career group since the employees count on their length of service to progress in the structure but do not use networks to show the enlargement of their activity field. They have to pass an exam.

Moreover, it is possible to notice that non executives evolve in stage 1, that includes the "Apprentices" made out by Dalton and Thompson (1986) whereas executives evolve in the second stage, regrouping «Independent contributors». Non executives, who stick closely to regulation, are limited in the decision making process and in their tasks. They strongly depend on their direct superiors. Executives establish a social network mainly made of their colleagues, and feel comfortable discussing with their superiors. Besides, these discussions are important if they want to make a career in the SNCB.

In order to respond to the question on tools used by the company employees and the way they use them, cognitive map analysis allows us to see that the formal process as well as the length of service are two important elements in the career. Indeed, no link is identified between the personal relations and extrinsic motivation.

CONCLUSIONS

On the eve of a major organizational restructuring as a result of new European regulations, we note that the SNCB does not still comply with the New Public Management. The interpersonal relations are not considered as available resources for the employees to obtain internal promotion, it seems there is no place in a competition race. The models offered in the literature do not fit this population's stake. The employees benefit from a privileged employment contract, protecting them from unemployment and linking them to the company for life. Their career is thus defined as "professional evolution within an organization" (Bird et al. 2002).

Non executives belong to the first stage in the typology of careers, set up by Dalton and Thompson (1986) whereas the executives belong to stage 2.

Our study, established upon semi direct interviews and upon the analysis of cognitive maps, leads us to the conclusion that the SNCB interviewed employees position themselves on a career control model, as regards executives, and on a self presentation career model in the case of non executives.

The cognitive map, based on the creation of links between variables, does not show the same results between executives and non executives. The latter do not select the same means; some of them use social networks whereas others have to improve their competences via a formal internal exam. Both populations do not care about the site health; this situation can be explained by the nature of the structure: bureaucratic and public, and by the nature of the contract linking the employees to the company.

Human resources management practices are different from one population to the other; hence executives do not have to be mobile following a promotion, whereas non executives have to.

The cognitive maps analysis points out similarities and differences in the way of linking the variables between executive and non executive populations. It allows us to understand how the respondents perceive their environment and their opportunities of action on their career. The analysis of the cognitive maps shows similarity between the executives and non-executives by way of linking the variables. Although having different academic background, while explaining their hierarchical level in the structure, they establish similar links between the employee competence and extrinsic motivation, between the competences and the organizational commitment, extrinsic motivation and the organizational commitment, length of service and the organizational commitment,

length of service and competences as well as between the academic background and competences.

The originality of this qualitative research, conducted in a Belgian public company, lies in the analysis of the interviews with the help of cognitive maps. This technique allows to interpret the words of the respondents by establishing links between various variables evoked in an almost spontaneous way. Only the words “promotion,” “interpersonal relations” and “academic education” were evoked during the interviews singling out main research topics.

These researches help the employees working in public structures to better understand the environment they are evolving in as well as their careers opportunities. Our study allows a better visibility on human resources management practices affecting public enterprises.

The managers’ goals being more and more complex, since they are becoming the “communication path” between technicians and superior managers, this work gives tools to public sector employees to understand their evolution within public organization. Thanks to the results obtained, the employees can identify the means useful to carry their professional career.

The limits of this research lie in the small sample size as well as the influence of the researcher during analysis of the interviews, susceptible to transposing his own subjectivity during elaboration of the cognitive maps.

In the future, we wish to carry out a more quantitative research on the SNCB staff by working out a questionnaire that would recapture the different topics and links discovered in this research paper.

One could also use this tool in the private sector to compare results as to how employees perceive their career, but with different analysis variables.

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APPENDIX 1

Introduction to the interviewed SNCB technicians

Interviews	Rank	Positions	Promo Type
Interview 1	4	Assistant technical master	Internal competition
Interview 2	7	Fitter	Taking the examinations
Interview 3	4	Administrative secretary	Internal competition
Interview 4	7	Security agent	No
Interview 5	4	Commercial secretary	No, did not qualify
Interview 6	4	Administrative secretary	Taking the examinations
Interview 7	4	Administrative secretary	Internal competition
Interview 8	4	Train driver	Internal competition
Interview 9	4	Main driver	Internal competition
Interview 10	4	Chief technician	Internal competition
Interview 11	4	Editor	Internal competition
Interview 12	4	Assistant technical master	Internal competition
Interview 13	4	Assistant head of office	Internal competition
Interview 14	4	Assistant head of office	Internal competition

Introduction to the interviewed SNCB “managers”

Interviews	Rank	Positions	Promo Type
Interview 1	3	Industrial engineer	No
Interview 2	3	Advisor, Head of project	Opportunity (recruited by a regional manager)
Interview 3	2	Main engineer/Civil engineer	Length of service (network)
Interview 4	3+	Main assistant/Industrial engineer	Length of service+exam of the very good
Interview 5	3	Industrial engineer	Length of service+exam of the very good
Interview 6	3	Juridic advisor/Main assistant	No
Interview 7	3	Advisor	No
Interview 8	3	Psychological prevention advisor	No
Interview 9	3+	Civil engineer/Main assistant	Length of service+exam of the very good
Interview 10	3+	Industrial engineer/Main assistant	Length of service+exam of the very good
Interview 11	3	Prevention advisor	No: does not belong to a trade union
Interview 12	1+	General Manager	Yes, switched company then came back
Interview 13	2	Main advisor/Head of department	Length of service+exam of the very good
Interview 14	3	Commercial and management engineer	No
Interview 15	3	Head of section	Internal competition (before rank 4)