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MINDFUL COMMUNICATION DURING SOCIALIZATION PROCESSES

Reducing Miscommunication through Mindfulness, Emotional Intelligence, and Sensemaking Narratives

Master's Thesis
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Abstract

This study is an initial attempt to investigate how the practice of mindfulness meditation can be beneficial for a more effective communication during socialization processes. Indeed, given the greater mobility and flexibility required in the current labor market, it becomes important to understand how organizations can facilitate the adaptation processes of their employees. To this respect, this Thesis focuses on communication as a role- and cultural-related information conveyer. Moreover, it analyzes miscommunication resulting from external non-task-related stimuli, human's basic psychological needs, and idiosyncratic interpretation of occurrences. In addition, this work studies how mindfulness meditation practice improves emotional intelligence dimensions that can result in limiting miscommunication sources. Finally, it triangulates results to understand whether such practice can facilitate socialization processes' communication. It has been concluded that, even though miscommunication is inevitable due to individual's idiosyncratic sensemaking, it is reasonable to assume that mindfulness practice increase communication's effectiveness. The significance of these findings lies in setting the theoretical grounds for the empirical testing of the following hypothesis: ***Mindfulness practice can facilitate effective communication during socialization processes.***

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Finally. The symbolic value that this thesis holds goes way beyond finishing my master studies. The last year and a half has been a rollercoaster of incredible satisfactions and troublesome setbacks. Looking back, I would have never thought I would somehow manage to get this far. This path, coupled with an increased personal awareness, taught me several lessons. The main one is to be true to what you believe in. Indeed, as this thesis explores, you will always be able to connect the dots afterwards, you will always be able to provide justifications that fit your personal sensemaking. If anyhow you will find the red thread, the least you can do is to add valuable pieces, to struggle for what you really want. As for what concerns me, I believe in unconditional love. And this year I've been loved as never before. For this, I am thankful.

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Moreover, I am thankful for the stunning people that are, or have been, in my life in the past 3 years. Thank you for enriching my life with your perspectives; for taking me to beautiful places; for letting me be part of your stories. Thank you for believing in me when I didn't; for seeing in me what I couldn't see; and for being there for me, the best way you could. Thank you for giving me love, strength, and peace.

Even though this journey taught me how to be my own handhold, having you reading this is to me a seriously precious gift.

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Ch. 1 Introduction

As Bauer & Erdogan (2011) define it, organizational socialization is the process by which employees acquire the necessary knowledge, skills, and behavior to perform as functioning organizational members and insiders. As the labor market is shifting towards greater turnover of employees and a globalized workforce, it becomes useful to understand how socialization processes in organizations work. Indeed, effective socialization increases job satisfaction and performance, which in turn influence commitment and turnover.

In her book "*Organizational communication: Approaches and processes",* Katherine Miller (2014) further defines organizational socialization as a communicative process through which working life sensemaking is made. Specifically, she determines two classes of information fundamental for an effective adaptation to the organizational context: role-related and cultural-related information. Moreover, she reports four phases of socialization during which communication plays a crucial role: recruiting and interviewing, newcomer information-seeking tactics, role development, and organizational exit.

Furthermore, as Witten (1993) underlines, "*through ongoing symbolic interaction, people constitute, maintain, and change their organizational environment*" (Witten, 1993). To this respect, neurobiological researches on mirror neurons and neuroplasticity have shed light on the ways in which we are connected to and influenced by the environment and the people around us. Moreover, they provide important insights on the way our experience and our environment build and develop our brain.

As Eisenberg (2007) points out, current managers and organizational theorists consider communication as crucial in organizations. However, he also highlights that "*for every communicative act, some individuals benefit, others lose; some in the short term, some later on*" (Eisenberg, 2007). This means that miscommunication is inevitable. Indeed, people rely on idiosyncratic sensemaking defined as *"a search for plausibility and coherence, that is reasonable and memorable, which embodies past experience and expectations, and maintains the self while resonating with others. It can be constructed retrospectively yet used prospectively, and captures thoughts and emotions"* (Brown, et al., 2008).

As the aforementioned quote pinpoints and as Herbert Bless and colleagues claim, "*individuals create their own "subjective social reality" from their perception of the input. An individual's construction of social reality, not the objective input, may dictate their behavior in the social world*" (Bless, et al., 2004). This means that personal elements, such as emotions, desires, etc., influence our construction of reality. Moreover, Kandel (2013) underlines that such influence can happen both consciously and unconsciously. To this respect, Mindfulness meditation practice has been associated with increased awareness of personal emotional processes, enhanced attentional skills, improved self-control and self-monitoring, better ability to inhibit irrelevant interfering external and internal activity, along with several other physical, cognitive, emotional, and psychological effects.

The aim of this Master Thesis is, thus, to triangulate theories in order to gain a deeper understanding of communication during socialization processes and the sources of miscommunication. Moreover, its purpose is to analyze whether the abilities acquired through mindfulness practice can facilitate effective communication. These primary objectives are translated in the following subquestions:
Subquestion 1: What are the sources of miscommunication that hinder socialization processes?
Subquestion 2: How can mindfulness limit miscommunication?

Finally, both subquestions' findings will be combined in the attempt of providing a sound answer to this Master Thesis' Research Question:

Research Question: How can mindfulness practice influence socialization processes through emotional intelligence and sensemaking narratives?

The contribution of this research is a deeper understanding of organizational socialization and the sources of miscommunication during such process. Moreover, by introducing concepts of meditation and neurobiology, this work aims at studying the aforementioned topics through a different perspective. Provided that miscommunication is inevitable, this Thesis contributes with theoretical bases for widening the scope of branches such as Organizational Communication, Human Resource Management, Neuroleadership, etc. .

Ch. 2 Methodology

In this section I will outline the research philosophy, the research method, and the data collection process. The goal is to facilitate the reader in understanding the choices I have made regarding the research process. Moreover, I will also present delimitations to the methodology employed, in order to clarify the validity and the boundaries of this thesis.

2.1 Research Philosophy and Approach

Following the choices made regarding which theories to apply, this thesis is placed under a specific paradigm of theory of science. Applying Witten's (1993) perspective according to which organizational reality is constructed by ongoing symbolic interactions along with the objectification of events into structures of meaning has, indeed, some methodological implications. Specifically, the aforementioned approach is based on the belief that reality and the knowledge of that reality are socially constructed (Rasborg, 2004).

Moreover, the choice of relying on Brown and colleagues' (2008) paper "*Making Sense of Sensemaking Narratives*" adds another facet to the philosophy of research. Indeed, the fact that individuals develop idiosyncratic knowledge implies that reality is intersubjectively perceived such that it is not absolutely and perfectly reproducible, but is the result of the specific and unique sensemaking of individuals. Witten (1993) and Brown and colleagues (2008) perspectives imply the application of the epistemological branch of the social constructivist paradigm according to which reality and our knowledge of that reality are socially constructed, and our perceptions are influenced by social circumstances (Rasborg, 2004)

As a consequence of using the social constructivism paradigm (i.e. reality and the perception of that reality are created in the interaction between individuals) it comes that the "truth" depends on the eyes of the beholder (Berger & Luckmann, 1966). Accordingly, the reality I am constructing in this thesis is a product of the interaction with my surroundings and with the theoretical body. This implies that the knowledge I am creating is itself a perspective, and cannot be considered as a definite truth (Rasborg, 2004).

However, this thesis applies also concepts belonging to behavioral neuroscience, which include biological variables. These variables include phenomena that are observable and objective. Therefore,

the research philosophy of this thesis is pragmatism, since "both observable phenomena and subjective meanings can provide acceptable knowledge" (Wahyuni, 2012).

Given the aforementioned philosophical premises, the choice of the inductive approach versus the deductive one is straightforward. In fact, the latter emphasizes a highly structured research whose goal is to explain causality between observable variables. Moreover, the deductive approach moves from theory to hypotheses that should then be tested through the gathering of sufficient data (Saunders, et al., 2009). The inductive approach, instead, is more focused on context and meaning of certain events. Furthermore, it permits alternative explanations to what is going on (Saunders, et al., 2009). The philosophical paradigms described earlier underline the importance of subjectivism in this research. The rationale behind the use of the inductive approach is precisely the fact that it admits a subjective perspective.

2.2 Research Method

According to Saunders, Lewis, and Thornhill (2009), researches in the business studies can be classified in accordance to their purpose. Exploratory research is used to ask question and evaluate "what is occurring" in a new light. It is frequently used to understand the general nature of a problem and the variables that need to be considered. Secondly, Descriptive research seeks to accurately describe a particular person, event, and/or situation. It provides a snapshot of specific aspects of the market environment. Finally, Explanatory research studies a problem or a situation and the relation between its variables (Saunders, et al., 2009).

Throughout the research process I have applied a combination of both exploratory and explanatory methods. Indeed, I first evaluated the existing studies on related topics, discussing the problem with experts, analyzing the situations, etc. . During this exploratory research I have mainly used secondary data collected for other purposes and a couple of interviews, in order to increase my knowledge of the matter. This allowed me to identify which problem I wanted to address. Secondly, during the explanatory research I have tried to triangulate researches that could facilitate a better understanding of the situation and its variables.

Apart from the interviews, which are considered as primary data, the thesis relies on secondary data, processed by experts in the various fields, and accumulated from relevant articles, books and Internet resources, etc. . Though mainly relying on secondary data, the combination of several theories certifies

a degree of theory triangulation that ultimately ensures the reliability and the validity of the study (Saunders et al., 2009).

2.3 Data Collection

The secondary data sourced and used in the paper consist mainly of academic articles and books from leading academic journals and publishing houses. Based on the purpose and on the scope of this Thesis, such data are concerned with perspectives within neuroscience, psychology, and management. The process began by collecting and screening the literature relevant to the research topic. I used secondary data worked out by the main and most frequently cited scholars within each field. Consequently, I believe that the selected articles and books strengthen the validity and reliability of this work. However, to secure the inclusion of the most recent and updated findings, a selection of new articles from less known scholars is also included in the paper.

The primary data consists of two semi-structured interviews with a researcher and a professor from the Department of Neuroscience at the University of Parma (Italy). The aim was to gain a deeper understanding on neuroplasticity and mirror neurons. Moreover, they shed light on the ways in which information unconsciously reach, shape, and develop our brain. Given the similarity between the two interviews, I chose to include in the Appendix only the one with the Neuroscience Professor. Moreover, due to its length, I provided a summary including only the topics relevant for this work.

2.4 Methodological Limitations

Due to the purely theoretical nature of this Thesis, I chose to rely on quantitative research. Its main advantage is that offers a complete description and analysis of the research subject. However, the effectiveness of this type of research is heavily based on the skills and abilities of the researchers. Furthermore, the outcomes may be perceived as less reliable as they are closely related to personal judgments and interpretations. While I assess the interviews as reliable and valid as they were held with professionals in the fields of Neurobiology, the biggest critique is on the so-called secondary data. The issues that a researcher might face while using this type of data are: validity and reliability, personal bias, availability of data, and the format of data. However, due to the pragmatic philosophical approach, this Thesis acknowledges that the reality I am creating is itself a perspective, and cannot be considered as objectively true.

The following section includes Chapter 3, Chapter 4, and Chapter 5. Its purpose is to outline the Literature Review regarding Socialization Processes, Organizational Miscommunication, and Sensemaking in Storytelling Organizations. Their interrelation will be further explained in small paragraphs at the end of each Chapter, and will be recapitulated during the Discussion. However, it is important to facilitate the reading and thus the understanding of the theories and perspectives I have chosen. For this reason, I report here a small summary that relates the various topics together.

Socialization includes those processes of approaching, joining, integrating, and exiting the organization. These processes rely heavily on effective communication between the organization and its participants. However, due to individual idiosyncrasies, miscommunication is inevitable. The use of Narratives and Storytelling might influence participants' sensemakings, thus limiting the problem of ineffective communication.

Ch. 3 Socialization Processes

3.1 Introduction

Organizational socialization is a communicative process through which sense is made of work life and varying levels of identification are forged (Miller, 2014)

In times past, people were often used to work for the same organization their entire life, nurturing long-term relationships with organizational participants. Nowadays, however, it is more common to work for several different companies during one's lifetime (Miller, 2014). Our society has become more mobile, requiring flexibility and adaptability in order to switch jobs or careers with greater frequency. Given this turnover, "*it becomes useful to understand the processes through which individuals and organizations adapt to each other*" (Miller, 2014).

Those ongoing behavioral and cognitive processes through which individuals join, integrate into, and exit organizations are called **assimilation** (Jablin & Krone, 1987; in Miller, 2014). On the one hand, organizations try to influence the adaptation processes of individuals "*through formal and informal* ***socialization*** *processes*" (Miller, 2014). For instance, the organizational dress code facilitates individual's understanding of the organizational culture. On the other hand, employee may try to shape some aspects of the organization to better suit their needs, abilities, or desires. This process is

called **individualization** (Miller, 2014). It might occur, for example, if a group of new employee starts a new tradition of going out for lunch altogether.

As individuals encounter and become part of organizations, these processes of socialization and individualization play out over time. This chapter will, thus, explore the role of communication in organizational assimilation as presented in Katherine Miller (2014) chapter on Socialization Processes. Moreover, given that most of the research concentrates on socialization, the attention will be focused mainly on this process. Specifically, I will first report socialization stages and contents. Secondly, I will outline some of its key communication processes. Indeed, I will present the dynamics of employment interview, followed by a description of how formal and informal channels facilitate individual's understanding of the organization. Next, I will look at the ongoing "*role development*" process through which an employee continuously adapts to the organization. Finally, I will consider communication processes during organizational exit and retirement.

3.1.1 Stages of Organizational Socialization

Adjusting to organizational life is a gradual process that develops over a great span of time, and involves many organizational members and activities. Scholars typically divide socialization into three phases. However, individuals experience turning points in which they become more or less connected to the organization at different times (Bulks & Bach, 1989; in Miller, 2014). Specifically, promotions, new colleagues, changes in organizational atmosphere, etc., are all events that shape individuals differently, making it difficult to find distinct patterns. Nonetheless, despite the idiosyncratic nature of the socialization process, there are three socialization stages that are common to every individual: **anticipatory socialization**, **encounter**, and **metamorphosis** (Miller, 2014).

Katherine Miller (2014), defines them as follows:

- *Anticipatory Socialization*: Socialization that occurs before entry into the organization. Encompasses both socialization to an occupation and socialization to an organization.
- *Encounter*: Sense-making stage that occurs when a new employee enters the organization. In order to understand the new organizational culture, the new employee relies on predispositions, past experiences, and interpretations. The newcomer must let go of old roles and values in adapting to the expectations of the new organization.

- *Metamorphosis:* The state reached at the "*completion*" of the socialization process. The new employee is now accepted as an organizational insider. However, the relationship between the individual and the organization is not static. In fact, the aforementioned turning points happen throughout the entire workplace life.

3.1.2 Content of Organizational Socialization

Researchers have considered the socialization processes over time (stages of socialization, *when*), but they have also introduced a classification based on their content: "*what must be learned in order to adapt to the organizational context*" (Miller, 2014). There are two classes of information that are fundamental during the socialization process: **role-related information** and **cultural information** (Miller, 2014).

- *Role-Related Information*: Encompasses the information, skills, procedure, and rules that an individual must grasp to perform on the job.
- *Cultural Information*: Encompasses the information regarding organizational values and behaviors.

3.2 Communication Processes During Socialization

This section explores the role of communication in the socialization process. I will report four aspects of socialization during which communication plays a crucial role. The first one is communication during employment interview, which is closely tied to anticipatory socialization. The second concerns the ways in which newcomers seek information during the encounter phase of socialization. Next, I will consider the ongoing communication in the role development process that characterizes the metamorphosis stage of socialization and the sense of identification that individuals develop with their organization and careers. The final section will describe communication processes during organizational exit.

3.2.1 Recruiting and Interviewing

The processes involved in obtaining a job vary a lot "*depending on issues such as the industry involved, the age and experience of the potential employee, and the specific needs of the organization*" (Miller, 2014). As an example, college graduates typically utilize campus career centers, while experienced professionals might take advantage of headhunting firms. Technology has, over time, shaped the initial matchmaking phase. The availability of "*data extractors*" for the screening of résumés or the access to

social networking sites, encourage applicants to use key words, phrases, and formatting that appeal to these technological screening processes (Connolly, 2012; Ramer, 2003; in Miller, 2014).

After these search and recruitment initial steps, the most widely used hiring tool is the employment interview (Powell & Goulet, 1996; in Miller, 2014). During this meeting, an organizational representative (or a group of them) and a potential employee gather for questions, answers, and conversation. This tool serves three basic functions. First, the interviewer is using the meeting to assess the capabilities and qualities of the potential employee. Second, the recruit takes advantage of this opportunity to gain better knowledge of the company. Third, the interview is a socialization tool, which means that it "*facilitates the adaptation of the applicant should he or she be hired*" (Miller, 2014).

3.2.2 Newcomer Information-Seeking Tactics

During the encounter phase of socialization there is another communication process critical to the adaptation of new employees: Information-Seeking (Reichers, 1987; Miller & Jablin, 1991; Morrison, 2003; in Miller, 2014). This step "*emphasizes the proactive role of organizational newcomers*" (Miller, 2014). Specifically, new employees seek information helpful for their adaptation processes into the roles, norms, and values of the organizational culture. There are several modes through which newcomers seek information, such as overt questions, indirect questions, observations, limits testing, etc. (Miller & Jablin, 1991; in Miller, 2014).

The use of these tactics varies depending on the extent to which uncertainty needs to be reduced and on social costs. The latter includes embarrassment, fear of irritating coworkers, etc. . It is important to underline that information-seeking depends on personality, but also on the perceptions of social costs, which are created through socialization processes. Moreover, employees can facilitate the use of such tactics by creating relationship-building opportunities (Flanagin & Waldeck, 2004; in Miller, 2014).

3.2.3 Role Development Processes

This final communication process begins once the employee enters the organization and continues throughout the metamorphosis stage of socialization, and concerns "*how individuals interact to define and develop their organizational roles*" (Miller, 2014). This process assumes that organizational members can accomplish their work through roles. Moreover, those roles are developed through the interaction between members in the organization (Graen et al., 1976; in Miller, 2014).

3.2.4 Organizational Exit

The research on communication during the disengagement process is relatively small, despite the increase in organizational exit due to nowadays-higher turnovers (Miller, 2014). I will report here few generalizations about communication during the exit process, as explained by Katherine Miller (2014).

- Organizational exit is a process, not an event.
- Organizational exit influences both those who leave and those who are left behind.
- Organizational exit influences also individuals who are not members of the organization, but that are directly related to who is exiting (e.g. families)
- Communication plays a critical role in the disengagement process
- Retirement, as the final exit from the workplace, holds particular meaning for individuals throughout employees' lives.

3.3 Conclusion

The job turnover during a person's lifetime has increased with respect to times past. It is now more common to switch between companies. It is, thus, important "*to understand the processes through which individuals and organizations adapt to each other*" (Miller, 2014). On the one hand, individuals try to shape some aspects of the organization to better suit their needs, desired, and abilities, in a process called individualization. On the other hand, organizations use socialization processes to influence the adaptation of individuals. Due to lack of research on individualization processes, I focused on socialization ones.

There are four aspects of socialization that rely heavily on communication: employment interview, information-seeking, role-development, and organizational exit. However, as we will see in the next chapter, due to the idiosyncratic experiences, goals, emotions, interpretations, etc. of individuals, miscommunication is inevitable. Chapter 5 will, thus, focus on the sources of miscommunication inside organizations. Moreover, Chapter 6 will explain how Narratives and Storytelling provide insights on the organization while limiting individual's interpretations.

Ch. 4 Organizational Miscommunication

4.1 Introduction

If management involves the taking of symbolic actions, then political, dramaturgical, and language skills are required, more than analytical or strictly quantitative ones (Pfeffer, 1981; in Eisenberg, 2007)

The concepts of organization and of organizational participants have drastically changed in recent years. While in the past little attention was paid to the role of cognition inside organizations, current works have seen a shift "*toward viewing organizational participants as thinking individuals with identifiable goals*" (Pfeffer, 1981; Weick, 1978; in Eisenberg, 2007). Moreover, recent work on organizational behavior is treating communication processes in organization as fundamental aspects, instead of regarding them simply as epiphenomena (Eisenberg, 2007).

In fact, language is a "*representational technology that actively organizes, constructs, and sustain social realities*" (Chia & King, 2001; in Brown, et al., 2008). Moreover, these social realities are discursive constructions that are constantly made and re-made during the conversation between organizational members, and between organizational members and outsiders (Chia & King, 2001; in Brown, et al., 2008). Going through the researches on effective communication I have found many theories and examples that would have been beneficial for this section. However, due to limited time and space, I decided to focus on the sources of miscommunication. This obviously means that limiting these misalignments in communication will increase its effectiveness.

4.2 Miscommunication in Organizations

Most current managers and organizational theorists consider communication as crucial in organizations, but challenging to address in a systematic way (Eisenberg, 2007). Communication researchers, however, can provide a more accurate perspective on effective organizational communication that allows for specific analysis and actions. Nonetheless, the organizational life is so complex that miscommunication is inevitable. In fact, "*for every communicative act, some individuals benefit, others lose; some in the short term, some later on*" (Eisenberg, 2007). Thus, there is no single set

of criteria that allows to easily determine what constitutes miscommunication or effective communication.

Each of the four approaches to miscommunication, which will shortly be introduced, identifies one kind of failure:

- Failure to be understood
- Failure to achieve one's communicative goals
- Failure to be authentic, honest, and disclosive
- Failure to establish an open dialogue

4.2.1 Miscommunication as Failed Understanding

According to this view, successful communication "*is clear and promotes understanding, and transfers necessary information for the 'machine' to continue optimal operation*" (Eisenberg, 2007). Miscommunication happens when the message is not received (e.g., due to distracting physical or psychological noise) or when the message is not understood in he way it was intended. Typical communication "*breakdowns*" include message overload, distortion, or ambiguity (Stohl & Redding, 1987; in Eisenberg, 2007).

4.2.2 Miscommunication as Failed Goal Attainment

This perspective equates effectiveness in communication with goal achievement. In an organization, if communication fails to help an employee achieve his/her goals is considered ineffective. However, there are two concerns to this approach. First, it is not clear who decides which goals are worth accomplishing. Secondly, it is difficult to determine the appropriate time by which those goals need to be accomplished. In fact, according to this perspective, "*an employee who lies about employment history or a manager who withholds important information about the safety of working conditions might both be communicating effectively, if the goal is to succeed by hiding some uncomfortable truths*" (Eisenberg, 2007). There are, thus, dangerous ethical dilemmas with a blanket endorsement of this perspective on miscommunication.

4.2.3 Miscommunication as Failed Openness

Some organizational scholars argue that organizational communication effectiveness lies in personal disclosure and authenticity (Eisenberg & Witten, 1987; in Eisenberg, 2007). This approach regards openness and self-disclosure as fundamental. A number of writers, however, have criticized this "*ideology of openness*" (Brown & Rogers, 1991; in Eisenberg, 2007), offering several examples in which

greater openness is not beneficial for individuals and organizations. They claim that people do not have the necessary time, energy, or good reasons to be completely open with colleagues (Parks, 1982; in Eisenberg, 2007). Even though striving for openness may be well-intentioned, most real-life communication circumstances display more complex social dilemmas, such as "*how much to reveal, how to reveal, what to reveal, when to reveal, and to whom to reveal*" (Eisenberg, 2007).

4.2.4 Miscommunication as Failed Dialogue

Stories are usually co-constructed in a dialogue process, where the listeners play an active verbal and nonverbal role (May, 1989; Ochs, 1988; in Eisenberg, 2007). The dialogic perspective acknowledges this negotiation of meaning and interpretation. With respect to the approaches described earlier, it is "*both more democratic and action-oriented*" (Eisenberg, 2007). However, individuals' interpretations are influenced by different experiences, needs, desires, etc. . This means that organizational members might interpret stories in seriously different ways.

4.3 Miscommunication as Failed Balance

Communication has two roles in organizations. On the one hand, it is an expression of constraint; it promotes organized action, accountability, and task accomplishment. On the other, communication expresses creativity; individuals can exercise autonomy and display innovativeness through interaction (Eisenberg, 2007).

The interplay between organized action and individual agency is present in all social organization (Eisenberg, 2007)

Individuals strive to maintain sufficient independence in order to grow and cultivate their own well-being; while simultaneously cooperating enough to accomplish organizational goals and feel part of the group. Moreover, also organizations have an interest in maintaining the aforementioned interplay. In fact, coordination is obviously fundamental, but so too is individual autonomy. Indeed, it grants greater flexibility, innovation, and adaptability to change (Weick, 1979; in Eisenberg, 2007).

As Eric Eisenberg (2007) pinpoints, "*the delicate balance between individual agency and organizational constraint is enacted in communication*". Employees shape this balance constantly by choosing to either reveal or conceal, either expressing or protecting themselves. **Effective communication is, thus, the achievement of a proper balance between autonomy and control** (Eisenberg, 2007). Too much

freedom will make an organizational dysfunctional, while too little freedom will make individuals suffer, and the organization stagnates. Failed balance is a result of miscommunication.

However, there are still some unsolved dilemmas. In fact, definitions of what constitutes a "*proper*" balance are always:

- Actor-bound (i.e. employees and stakeholders have different desires)
- Time-bound (i.e. balance needs to be revised through time)
- Culture-bound (i.e. appropriate balances differ according to culture, be it organizational or geographical)

4.4 Conclusion

As stated in Chapter 4, socialization processes rely on effective communication to achieve a minimum level of adaptation between the organization and its members. However, the latters have an idiosyncratic nature that allows for different interpretation on the same matter. This misalignment is the source of miscommunication. Organizational scholars do not have an agreed upon definition of effective (and ineffective) communication, but provide different approaches focusing on particular aspects of conversations.

In sum, "no adequate definition of miscommunication escapes relativism or context-dependence" (Eisenberg, 2007). For this reason, I will treat miscommunication as a mixed failed understanding, failed goal-attainment, failed openness, failed dialogue, and failed balance between individual agency and organizational constraint. The next chapter (Chapter 6) focuses on Narrative as a communicative tool that reduces the room for interpretation. This might result in shared sensemakings that facilitate effective communication.

Ch. 5 Sensemaking in Storytelling Organizations

5.1 Introduction

Traditional assumptions of organizational research have treaded communication as a way of transmitting information useful in decision-making. In contrast to this perspective, newer cultural approaches stress the role of language in producing the very sense of organizational reality (Smircich, 1983; in Witten, 1993). These views claim that "*through ongoing symbolic interaction, people constitute, maintain, and change their organizational environment*" (Witten, 1993).

Specifically, through talks and other symbolic behaviors, people construct a shared, intersubjective understanding of their reality. Moreover, they create a scheme for making sense of that reality (Witten, 1993). Thus, the ordinary order of organizational reality is constructed by ongoing symbolic interaction along with the objectification of events into structures of meaning (Berger & Luckmann 1966; in Witten, 1993). For this reason, scholars working within this interpretive understanding of organizational reality "*have focused on symbolic systems and sense-making procedures in organizations*" (Witten, 1993).

5.2 Storytelling Organizations

As Boje (2008) defines it, Storytelling Organization is about "*how people and organizations make sense of the world via narrative and story*". On the one hand, narratives structure our past events into experience using consistency to achieve credibility. On the other hand, stories are more about dispersed events in the present, or anticipated future ones. However, they constantly interact to create and change meaning among organizational participants. For this reason, I am using both terms interchangeably.

This section has been inspired by Boje's book *Storytelling Organizations* (2008), which identifies the dynamics of Storytelling Organizations as "*types of sensemaking patterns of narrative coherence in relation to story dispersion*". This part is particularly relevant because it regards each organizational member as an actor in the workplace theatre. People become known by their story, which shapes their perceptions, goals, motives, their relationship with others, etc. Moreover, single actors and networks of them participate in the overall Storytelling Organization.

5.3 Narratives and Storytelling

The importance of Narrative Theory derives by its focus on "*how meaning is structured through storytelling and how these stories guide how ideas are translated into local settings*" (Pedersen & Johansen, 2012). **The most relevant narratives are the ones that facilitate collaboration and interaction through the persuasion of organizational members in participating and making common sense of the organizational life**. Moreover, these narratives develop an environment of shared acceptance of the degree of emotional arousal expected at work. **Narratives supply a given structure of meaning, minimizing the role of interpretations** (Pedersen & Johansen, 2012).

Because of the cognitive and psychological effects of stories on listeners, speakers can make strongly persuasive assertions through narrative discourse (Witten, 1993). First, among speech acts, stories are especially capable of capturing attention "*through features of their language as the use of active voice, present tense, repetition, and vivid and concrete details through which plots and episodes are unfurled*" (McLaughlin, 1984; Wilkins, 1983; in Witten, 1993). Moreover, since immediate language is memorable, the salience of these stories and of their details is likely to persist over time (Martin, 1982; Yuille & Paivio, 1969; in Witten, 1993).

Furthermore, a well-constructed narrative is an important communicative form for emotionally involving participants, increasing interest and absorption (Bormann, 1983; Wilkins, 1978; in Witten, 1993). As teller and listener orient together around the central characters and events of a narrative, they achieve a sense of collective participation, shared experience, and psychological investment (Bormann, 1983; Fisher, 1984; Martin, 1982; in Witten, 1993).

Recent studies of organizational narratives indicate that narratives are not isolated phenomena (Boje, 1991, 2001, 2008; in Pedersen & Johansen, 2012). Indeed, "*they become part of other stories, integrating and mingling with them*" (Pedersen & Johansen, 2012). Moreover, for these stories to become important and relevant, there has to be some sort of agreement (even tacit) between organizational members. Furthermore, organizational discourse is also characterized by fragmented stories without a plot: organizational *antenarratives* (Boje, 2001). These antenarratives "*are often oral and highly coloured by the organizational context*" (Pedersen & Johansen, 2012).

Finally, narratives are not only used to entertain and absorb. They are powerful forms for the exercise of covert control at the workplace. In fact, it is partly through the recounting of narratives that hierarchical relationships in organizations are imaged. Moreover, they facilitate the understanding of parameters and obligations inside the organization, along with behavioral norms in service of the organization's goals (Witten, 1993).

In conclusion, through frames and names, narratives covertly impart values. They have the ability to channel attention towards certain elements and away from others, "*setting parameters around elements that are salient and meaningful*" (Weick, 1979; in Witten, 1993). For instance, asymmetrical distribution of power will appear as appropriate if core values legitimize the authority of some over others. **Values transmitted through narratives can enable or suppress actions by influencing the ability of people to identify what they are experiencing** (Witten, 1993).

5.4 Sensemaking

Sensemaking occurs in the context of individuals' idiosyncratic efforts at identity construction (Brown, et al., 2008)

There are different approaches to organizational sensemaking. On the one hand, a stream of theorizing ignores discrepancies in sensemaking, assuming that organized action is the result of general agreement among organizational members. According to this perspective, organizations are systems of shared meaning (Louis, 1980, 1983; Pfeffer, 1981; Smircich & Morgan, 1982; in Brown, et al., 2008). On the other hand, a different approach perceives shared understanding as minimal, but has not explored *why* and *how* (Donnellon et al., 1986; Weick, 1979, 1995; Weick et al., 2005; in Brown, et al., 2008).

Both approaches share the lack of investigation on "*why people disagree regarding their interpretation of experiences they have in common*" (Brown, et al., 2008). For this reason, this section relies on Andrew Brown and colleagues' paper (2008) titled "*Making Sense of Sensemaking Narratives*". In fact, it is focused on the idiosyncratic knowledge that individuals develop in order to understand and clarify aspects of their working life. The relevance of this paper lies in its exploration and explanation of the simultaneously agreed and discrepant sensemaking of organizational members (Brown, et al., 2008).

Moreover, throughout their paper, Brown and colleagues (2008) adopted a narrative approach beneficial for the purposes of this chapter. In fact, they analyzed how members of a team retrospectively assemble narrative sensemaking constructions. Specifically, they regard narrative as "*a primary cognitive instrument, which constitutes the basic organizing principle of human cognition*" (Mink, 1978; Polkinghorne, 1988; Boland & Tenkasi, 1995; in Brown, et al., 2008).

Furthermore, this section agrees with the understanding that identities subjectively conceived can be shared through narratives (Brown, et al., 2008). These self-narratives are formed, repaired, maintained, strengthened, and revised in order to provide coherence and continuity in the sensemaking process. This perspective positions organizational members in relation to the discursive resources that are available to them. **Sensemaking is, thus, fundamentally tied to individual identity generation and maintenance** (Brown, et al., 2008).

5.5 Sensemaking in Storytelling Organizations

Sensemaking refers to processes of interpretation and meaning production through which individuals and groups interpret and reflect upon phenomena (Bean & Hamilton, 2006; Leiter, 1980; Stein, 2004; Weick et al., 2005; in Brown, et al., 2008). Through these sensemaking processes "*people enact the social world, constituting it through verbal descriptions which are communicated to and negotiated with others*" (Berger & Luckmann, 1966; Garfinkel, 1967; in Brown, et al., 2008).

Adopting a definition recognizing that sensemaking involves processes of narrativization (narrative-making) allows investigating the extent to which organizational members agree, share, disagree, and contest understandings (Brown, et al., 2008). This argument about sensemaking as a narrative process, presented by Brown and colleagues in their article "*Making sense of Sensemaking Narratives*", derives from the view that:

- "*Man is in his actions and practice, as well as his fictions, essentially a story-telling animal*" (MacIntyre, 1981; Bruner, 1990; Fisher, 1984; in Brown, et al., 2008)
- "*Narrative is the primary form by which human experience is made meaningful*" (Polkinghorne, 1988; in Brown, et al., 2008)
- "*The basic technology of organization is a technology of narrative*" (March, 1996; in Brown, et al., 2008)

The definition adopted in this thesis is, thus, the following:
"Sensemaking is a search for plausibility and coherence, that is reasonable and memorable, which embodies past experience and expectations, and maintains the self while resonating with others. It can be constructed retrospectively yet used prospectively, and captures thoughts and emotions" (Brown, et al., 2008).

Brown and colleagues' case study (2008) suggests that a shared narrative may be appropriated, modified and embellished by organizational members to make idiosyncratic sense, retrospectively, of ambiguous actions and outcomes. Moreover, this individual effort may result in notable disagreement. In fact, even though much sense is shared, organizational actors "***are strategically motivated to determine their own highly personal interpretation of what has occurred***" (Brown, et al., 2008).

To this respect, the case study presents a narrative about a company's project that the authors had developed after a series of interviews and researches. After sending the narrative to the company, they received positive feedback, suggesting that the text of the narrative represented a version of the events agreed by participants. This narrative framing was forged "*through ongoing processes of networking, negotiation, and communication – a collective shared memory that has been talked to existence*" (Brown, et al., 2008).

Through this "*locally plausible story*" (Weick, et al., 2005; in Brown, et al., 2008), a series of ambiguous inputs have been collected and organized to make sense of what happened during the development of the project. The purpose of this narrative is twofold. On the one hand, it is a unifying statement of collective identity. In fact, it generated a shared understanding about the organization, its strengths and weaknesses, the problem it faces, and how it deals with them. On the other hand, the narrative allowed the inclusion of various kind of tacit knowledge, such as the difficulties encountered and the problem-solving competencies acquired (Brown, et al., 2008).

However, the two purposes were not unproblematic. As a statement of collective identity and as a source of knowledge, organizational members appropriated the narrative and layered it "*with interpretations that incorporated their particular identity concerns*" (Brown, et al., 2008). As an example, the primary objective was to design, develop and dispatch a project tailored to the client's specifications. Nevertheless, "*there were some subtle and some marked differences in individual understanding*" (Brown, et al., 2008). Some participants stressed the importance of delivering on time, others focused on the best achievable design, etc. .

The case, thus, suggests that a basic shared storyline can be appropriated, adjusted, and coloured by single participants to retrospectively make idiosyncratic sense of ambiguous actions and outcomes (Brown, et al., 2008). The narrative is, in fact, shared and agreed upon by the participants, as the aforementioned theories suggest. However, organizational participants' sensemakings can differ notably because of their own strategically motivated/highly personal interpretations.

Furthermore, the authors stress the connection between the fragility of organizations and sensemaking as a process of identity construction. Specifically, they claim that organizations are vulnerable because individual's sensemaking is focused on personally preferred identity narratives (Brown, et al., 2008). For this reason, they focus on "*impression management*" and "*attributional egotism*", which are two aspects of identity maintenance. Impression management concerns those behaviors employed by individuals to influence the perception that other people have of them. The second aspect, attributional egotism, refers to the tendency to attribute unfavorable outcomes to external factors, and favorable ones to the self. The relevance of these concepts lies in their ability "*to offer more complete explanations of how people understand and read meaning into their work and organizing*" (Brown, et al., 2008)

In the specific setting of this case study, individuals authored a self-serving version of events in order to preserve and enhance their self-esteem. They tended to attribute positive outcomes to the self and negative ones to external factors (attributional egotism) in an attempt to influence the audience's perception of them (impression management). It is important to recognize that narratives have a role in preserving public esteem. In fact, they provide "*insights on the socio-cognitive dynamics of narratological forms of sensemaking*" (Brown, et al., 2008).

Specifically, this case demonstrates that people often act as if their worth was "*established by the opinion of others*" (Boltanski & Thevenot, 2006; in Brown, 2008). Individuals spin stories maximizing the perceived self-value, offering versions that nullify or mitigate any negative implications. Thus, "***sensemaking narratives are not just about explanation and self-insight but communication and persuasion***" (Brown, et al., 2008).

Finally, it is important to notice the presence of authorial silences and narrative. They are inevitable parts of the organizational storytelling due to temporal and structural complexity, along with strategic decisions of individual storytellers (Brown, et al., 2008). The agreed narrative was, thus, potentially unstable. In fact, if the narrative was to be discussed further among team members, there could have been disagreements in each other's understandings (Brown, et al., 2008).

5.6 Conclusion

In conclusion, "*what is shared between people are actions, activities, moments of conversation and joint tasks, not meaning*" (Brown, et al., 2008). However, some degree of equivalent understanding must be reached in order for participants to coordinate actions. These can, thus, be translated in sufficiently mutually reinforcing narratives about the self and the organization. By attending to individual differences in sensemaking it may be possible to better understand what creates ambiguity and disagreement inside organizations.

The following section includes Chapter 6, Chapter 7, and Chapter 8. Its purpose is to outline the Literature Review regarding Neurobiological and Psychological insights that I found relevant in relation to what previously discusses. Namely, I will outline researches on Emotional Intelligence, Mindfulness meditation practices, along with a couple of specific findings on Neurobiology and Psychology. The interrelation between these topics, and also their interrelation with the previous section, is fairly complicated. For this reason, I will only describe the theories and why they are relevant. I will relate them to the bigger picture during the Discussion part in Chapter 10.

Ch. 6 Emotional Intelligence

6.1 Introduction

Emotions are an integral part of being human and our consequent actions and reactins
(Ghadiri, et al., 2013)

Notwithstanding the importance and the impact of emotions in our daily lives, there is no definitive taxonomy or generally accepted method of classification of what they are. For this reason, I decided to refer to the definitions of affect, mood, feeling, and emotion provided by Argang Ghadiri and his colleagues (2013).

- **Affect**: the experience of feeling or emotions in response to a stimulus, in the form of emotional or physical manifestation, whether consciously processed or not. Even though many affects may be instinctive and short lived, they contribute to the whole experience of an emotion and its physical manifestation, but also of the behavioral manifestation. An emotion will drive to action when it is affective.
- **Moods**: represent broad emotions and influence an individual over time, in fact they shape the way we see the world. They have significant impact on motivation and interpersonal interactions in the workplace. In fact, people who are positive and optimistic tend to place more trust in their environment, master problems better, and develop creative solutions quicker (Fiedler, 1988; in Ghadiri, et al., 2013). On the other side, people who are often in a negative mood, tend to look for more safety, are afraid to make mistakes, and are generally more tense. I find relevant to underline that moods in the workplace are rarely measured, even though they have "*subtle and powerful effects on the way the work is being carried out*" (Ghadiri, et al., 2013). Finally, many

moods have no clear conscious trigger, nevertheless, an event triggering a strong emotion can give rise to a mood.

- **Feeling**: the conscious subjective experience of emotion, or the affect of it. It is the physical manifestation and representation of an emotion and not the emotion itself. Feelings are the body's internal communication system of emotion and are also driven strongly by the hormones and chemicals in the brain.
- **Emotions**: the psychophysiological state s of mind from the interaction of internal and external processes. These are conscious manifestations shaping our feelings and internal representation and affect our subsequent mood. There are six basic emotions (anger, disgust, sadness, fear, surprise, and happiness), but their interrelation and intensity create a plethora of possibilities. Emotions are particularly relevant in organizational contexts because they affect the mood of every human being. Specifically, emotions come in combination with chemical processes in the brain and body, thus influencing the affective impact. Examples of affective impacts are increased/decreased energy, focus, motivation, etc. . Furthermore, as noticed earlier in the mirror neurons' paragraph, emotions are also mirrored, meaning that they can be contagious. **Emotions of individuals and of the overall group will be directly impacting the mood in any business, thus influencing people's own chemical brain and body balance, which will, in turn, shape the abilities to optimally operate in any given context**.

6.2 Emotional Intelligence

Along with the aforementioned understanding of emotions and their fundamental importance in the brain, the concept of emotional intelligence has also developed. It became a mainstream movement in the 1990s thanks to Daniel Goleman's conceptualization of it (Goleman, et al., 2001; in Ghadiri, et al., 2013). He defined the following five competencies on the two axis of Intrapersonal and Interpersonal Competencies (Figure 1).

- **Self-Awareness** is the ability to introspect and to understand one's own feelings, emotions, moods, and motives. It includes knowing how we respond to various internal and external stimuli, along with identifying one's effect on other people.

- **Self-Regulation** refers to the control individuals have on themselves and on their moods. It includes the ability to be minimally affected by external stimuli. A person with high self-control

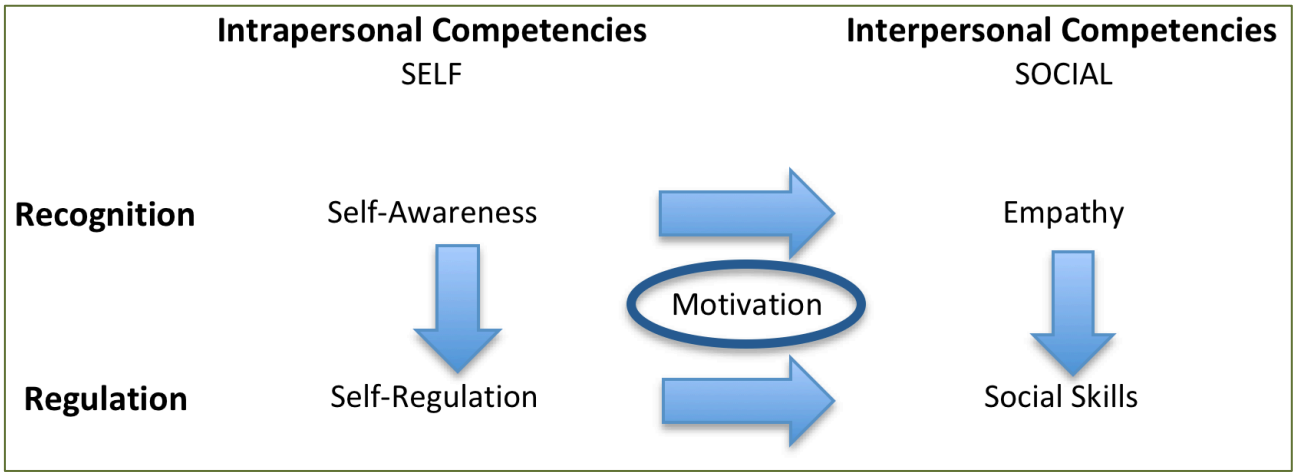
will not respond impulsively to a stimuli, but will think clearly when evaluating the situation, consequently making more though through decisions.

- **Empathy** is the ability to put oneself in another's position, sharing their emotions and standpoint, without getting pulled under by these emotions and perceptions. **Empathy** increases the ability to understand other people, their motives and drivers to a deeper and more fundamental level. Generally, this **goes hand in hand with a clear understanding of one's own emotions**.

- **Social Skills** are those abilities to adapt in social contexts, to be able to inspire and influence through effective communication skills, and to be able to relate and tap into other's emotions and motives. Moreover, social skills are about collaborating and building relationships, along with managing conflicts.

- **Motivation** is the ability to work on problems and projects without an external extrinsic reward such as status or money. It is the propensity to pursue goals with energy and persistence. Commitment and optimism will help overcome any hurdles and setbacks.

Figure 1 **Dimensions of Emotional Intelligence**



The role of the aforementioned elements of emotional intelligence is critical in organizations. As Self-Awareness and Self-Regulation abilities increase, also our Empathy does. This, in turn, affects our social skills. These abilities are important at an organizational level, because they facilitate a smoother interaction between participants. Furthermore, in order to maximize motivation "*learners need to*

believe not only that greater emotional competence will lead to valued outcomes, but also that it can be improved" (Goleman, et al., 1998).

Moreover, emotional intelligence is beneficial also during decision-making processes. In fact, as it will be explained in the next section, emotions have the ability to drive action at an unconscious level, even when they are triggered by stimuli not relevant to the task. Through an increase in emotional intelligence, the effect of *unfunctional* emotions on decision-making processes might be reduced.

6.3 Emotions in Decision-Making

Traditional economic theories of choice have developed assuming individual's decision-making as a rational process. However, Neuroeconomics and Cognitive Neuroscience observed anomalies challenging this assumption. In order to explain such divergence in economic decision-making from neo-classical theory, researchers implemented cognitive psychological findings.

There are several elements influencing decision-making processes. This chapter analyzes the role of one of them: emotions. In fact, their importance lies in their ability to "*drive cognitive and behavioral responses*" (Ramsøy, 2014). Unconscious emotional responses, however, can be triggered also by stimuli non-relevant to the information processing. This could result in directing or biasing the decision-making processes in a way that does not optimize behavior. The ultimate result can be a reduction in the rationality of individuals.

6.3.1 Conscious and Unconscious Systems

According to Daniel Kahneman, System 1 (Unconscious System) and System 2 (Conscious System) are the two different ways in which the brain forms thoughts. The latter is a controlled system, it is slow and effortful, it elaborates judgments, actions and beliefs. Instead, the former is intuitive, automatic, fast, facilitated by experience and it often relies on heuristics (Kahneman, 2011).

The two systems constantly exchange information. On the one hand, System 1 generates suggestions to System 2. On the other hand, the Conscious System help the Unconscious one in the information processing when there is the need for more details (Kahneman, 2011). Eric Kandel, however, suggests that even though information is broadcasted to the cortex in response to a sensory stimulus, it may not result in our becoming consciously aware of that stimulus. This means that, "*information can enter our*

cortex yet not give rise to conscious perception. Intriguingly, however, such information can affect our behavior" (Kandel, 2013).

The former paragraph underlines System 1's independence from System 2, and its ability to facilitate decision-making processes. This cognitive structure allows fast action. Nonetheless, certain intellectual shortcuts can result in suboptimal judgments (Kandel, 2013). As Herbert Bless and colleagues claimed, "*individuals create their own "subjective social reality" from their perception of the input. An individual's construction of social reality, not the objective input, may dictate their behavior in the social world*" (Bless, et al., 2004). This means that personal elements, such as emotions, influence decision-making processes and generally our construction of reality.

6.3.2 Somatic Marker Hypothesis

In their paper "*The Somatic Marker Hypothesis: a neural theory of economic decision*", Antoine Bechara and Antonio Damasio explore the role of emotions in decision-making processes. They claim that excluding their role in current economic models of expected utility is inconsistent with their foundations (Bechara & Damasio, 2005). In fact, "*Expected Utility*" theory has been based on the idea "*that people established their values for wealth on the basis of the pain and pleasure that it would give them*" (Bechara & Damasio, 2005).

According to the authors, emotions correspond to specific group of changes in the body and in the brain, in response to different stimuli. These alterations are called somatic or body states (Bechara & Damasio, 2005). They include physiological changes (e.g. mutations of facial expressions, increase or decrease in the heart rate, muscle contractions, etc.) that are transmitted to the brain. The latter, in turn, translates them into emotions, which are necessary for the individual to understand the stimulus she has encountered. Moreover, emotions and their corresponding physiological changes become related to a specific situation and/or to past outcomes (Bechara & Damasio, 2005).

Emotions trigger variations is the body, as well as in the brain, through the release of neurotransmitters, such as serotonin, dopamine, acetylcholine, etc. Moreover, these changes include mental portrayal of the physical changes, called "*as-if*" body states, partly supported by the insular cortex (Bechara & Damasio, 2005). These mental representations classify or code the wide range of physiological change, so that they correspond to a specific somatic state. The ventromedial prefrontal cortex (VMPFC) is thought to be the one processing somatic markers (Bechara & Damasio, 2005).

When facing complex and uncertain decisions, individual's cognitive processes might become overloaded, and thus insufficient. In these cases, the somatic markers triggered by the different stimuli are associated to produce a net somatic state. The latter directs or biases one's decision-making processes (Bechara & Damasio, 2005). This influence may occur unconsciously, via the brainstem and the ventral striatum, or consciously, involving higher cortical cognitive processing. Antonio Damasio and Antoine Bechara claimed that somatic markers facilitate the decision-making processes, guiding behavior towards the most advantageous option. Moreover, they are adaptive, because they are based on and reinforced by past experience (Bechara & Damasio, 2005).

Somatic states may be activated by primary or secondary inducers. When the formers are present in the environment, "*they automatically and obligatorily elicit a somatic response*" (Bechara & Damasio, 2005). An example of a primary inducer can be the encounter of a sneak that triggers an emotional response of fear. On the other hand, imagining or recalling a past or hypothetical emotional event generates secondary inducers. In fact, thoughts or memories of a primary inducer elicit a somatic state when brought to working memory (Bechara & Damasio, 2005). Recalling the aforementioned example of the snake, a secondary inducer would be the memory of encountering a snake. Moreover, the same stimulus can elicit both primary and secondary inducers at the same time (Bechara & Damasio, 2005).

Decision-making processes are subject to different stimuli. This means that they can incorporate various primary and secondary inducers. In general, as Antoine Bechara and Antonio Damasio highlighted, working memory and decisions are biased by emotions to optimize behavior (Bechara & Damasio, 2005). However, these emotions can be misleading. In fact, they can be subject to external forces unrelated with the task. In that case, the emotions evoked are not informative, but they could still result in maladaptive decisions bias. Even though emotions have been "*powerful survive engines that have helped us survive*" (Ramsøy, 2014), they make individuals vulnerable.

6.3.3 Limited Rationality due to Emotions

In rational theories of choice decision processes are assumed to be:

1. consequential, which means that actions depend on anticipations of the future effects of current actions
2. preference-based, which means that consequences are evaluated in terms of personal preference

The completeness of rationality is hindered by the lack of sufficient information on the available alternatives and their consequences, insufficient time to gather and elaborate them, the imprecise knowledge of our own preferences, etc. (March, 1994). Improving rationality should, thus, be easy. When presented with additional and/or deeper information on the subject and when advised on the possible consequences of the courses of action, individuals should be able to have a more rational decision-making process. However, there are several elements that prevent the information from reaching the brain.

Real life situations of any kind trigger different physical and psychological responses in individuals. When we are presented with information, the first system that is stimulated is the Unconscious one. As stated in section 2.1, if System 1 immediately triggers a reaction, the Conscious System might not receive the information. The Unconscious System can work independently. Moreover, even when information reaches System 2, it might have been subject to the influence of the Unconscious system and its mental shortcuts (Kandel, 2013).

Emotions are common reactions to stimuli that directly involve the Unconscious System (Kandel, 2013). Their importance lies in their ability to "***drive cognitive and behavioral responses***" (Ramsøy, 2014). Indeed, when a stimulus activates a strong enough emotional response, the organism focuses on reacting to that emotion, without immediately considering the information received (Ramsøy, 2014). The example of people's reaction to a horror movie is clarifying. When people are faced with a scary scene, their Unconscious reaction is to close the eyes, their heart rate increases, they start sweating, etc. . The reaction of System 1 includes a physical reaction that precedes rationality. If the Conscious System had immediately received the information, people would have realized that they are not really endangered and what happens in the movie cannot cause them harm.

As aforementioned, emotions often occur without or before consciousness. If, due to emotions, information cannot be elaborated consciously, it will be impossible to increase the rationality of the decision-making processes (Ramsøy, 2014). Consider the example of a student preparing his exams. While studying a difficult chapter, he notices that he's still unprepared. On an unconscious level, he might react to this stimulus with emotions of anxiety, sadness, or even anger. The body might answer with tears, nervous behavior, muscular tension, etc. . These physical reactions might generate problems in concentrating (American Psychiatric Association, 2013). If these emotional responses were not triggered, System 1 could transmit the unpreparedness problem to the Conscious one. The latter could rationally react to this information by increasing the attention and motivate the student.

Another example has been provided by Koenigs and colleagues (2007) in their article "*Damage to the prefrontal cortex increases utilitarian moral judgments*". As the name suggests, their study analyzed the response of individuals to different moral dilemmas. It compared patterns of judgment of healthy controls with people presenting damages to the ventromedial prefrontal cortex (VMPC), which is a brain region responsible for the normal generation of emotions, especially social ones. The results showed that people with damage in the VMPC "*produce an abnormally 'utilitarian' pattern of judgments on moral dilemmas that pit compelling considerations of aggregate welfare against highly emotionally aversive behaviors (for instance, having to sacrifice one person's life to save a number of other lives)*" (Koenigs, et al., 2007)

This study was aimed at indicating that the VMPC is critical for normal judgments in a selective set of moral dilemmas. Moreover, it supported the necessary role of emotions in generating "normal" moral judgments. However, I reported it here to underline the fact that people with less emotional arousal, in this case due to a brain damage, have the ability to make more "utilitarian" decisions. These findings further support the aforementioned statement about emotions driving decision-making processes, not always towards the most rational outcome. Thus, it is important to acquire emotional regulation abilities that facilitate the understanding of the nature of the emotions triggered. In this way, it will be possible to understand if they are beneficial or not to the task at hand.

6.4 Emotional Awareness and Regulation

The individual's ability to process and manipulate information in working memory is limited. Cognitive neuroscience and behavioral research suggests that the active regulation of emotional states gather brain mechanisms also responsible for managing attentional resources (Arch & Craske, 2006). Joanna Arch and Michelle Craske's laboratory study aimed at proving that "*brief focused breathing exercises improve the control of attention and aid in regulating negative emotions during stressful situations*". (Arch & Craske, 2006).

The study investigated the effects of 15 minutes recorded focused breathing induction compared with 15 minutes recorded inductions of unfocused attention and worrying. Participants belonging to the former group "*maintained consistent, moderately positive responses to the neutral slides, before and after the induction*" (Arch & Craske, 2006). Instead, the latter group showed a significantly more negative response to the neutral slides after the induction than before it. The results exhibit a

tendency to increase tolerance and behavioral willingness to remain in contact with negative and unpredictable stimuli (Arch & Craske, 2006).

This study established that 15 minutes of breathing exercises increase the recognition, the tolerance and the acceptance of negative emotional events. Moreover, it facilitates the return to a neutral state. The assumption is that the system mainly involved in this practice is the Conscious one. Its attention is purposely directed towards understanding emotions and analyzing which stimuli triggered them. **Acknowledging this processes allows disregarding thoughts derived by emotions irrelevant to the task, thus avoiding distractions**.

The problem arises when we start considering that our daily lives are constantly subject to both primary and secondary inducers. Our senses are bombarded by stimuli belonging to the task we are facing, but also from the context (environment, family, social life, personal goals, etc.). Moreover, emotions often occur before or without consciousness. At this stage, where the Conscious System is not involved, individuals have difficulties in establishing whether their somatic state is beneficial in directing decision-making processes. However, acknowledging these barriers is beneficial because it allows deconstructing the problem of limited information and finding ways to bypass elements of disturbance.

6.5 Conclusion

In conclusion, emotions are essential components of decision-making processes. Neurological evidence suggests that emotional impairment makes it impossible (or extremely difficult) for individuals to make simple, concrete decisions. Moreover, emotions "*are essential when individuals make distinctions among an array of possible actions, and they may even be a critical factor in understanding ourselves as conscious individuals in the context of social interaction (Damasio, 1999)*" (Callahan, 2004).

Nonetheless, it is important to recognize and exclude those emotions triggered by stimuli not relevant for the task, as they might direct behavior and decision-making processes in an irrational way. The next chapter will focus on meditation as a tool to recognize and regulate emotions at an individual level. This practice, in turn, might increase overall emotional intelligence facilitating personal well-being and effective interaction among organizational members.

Ch. 7 Mindfulness Based Stress Reduction (MBSR)

7.1 Introduction

From birth until death, we are relentlessly trying to feel better (Siegel, et al., 2009)

Different cultures around the world have developed peculiar meditative wisdom practices with varied purposes. Throughout history, one of the goals of human beings has been discovering the causes of suffering and ways in which to reduce it (Siegel, et al., 2009). In their book *Clinical Handbook of Mindfulness*, Dan Siegel and his colleagues (2009), define mindfulness as "*a way of relating to all experience that can reduce suffering and set the stage for positive personal transformation*" (Siegel, et al., 2009). The role of such practice - rooted in ancient Buddhist, Hindu, and Chinese philosophies - is to focus attention to the present moment and to decrease immediate reactivity to what is happening in that same moment. Relating to all experiences - positive, negative, or neutral - with a mindful approach, reduces the overall levels of suffering, and increases the sense of well being (Ie, et al., 2014).

Having defined the purpose of practicing mindfulness, it is important to understand what it means on a practical level. John Kabat-Zinn (2005) describes mindfulness as "*moment-to-moment, non-judgmental awareness, cultivated by paying attention in a specific way, that is, in the present moment, and as non-reactively, as non-judgmentally, and as openheartedly as possible*" (Kabat-Zinn, 2005). The ability to know what is happening as it is happening is an innate quality of mind. However, it has to be refined through practice. According to John Kabat-Zinn (2005), this systematic and intentional cultivation of mindful presence increases qualities of mind, such as wisdom and compassion.

Mindfulness is a "*core psychological process that can alter how we respond to the unavoidable difficulties in life*" (Siegel, et al., 2009). It has proved to be beneficial not only regarding everyday existential challenges, but also for what concerns severe psychological problems, such as suicidal ideation, chronic depression, and psychotic delusions (Linehan, 1993; Segal, Williams, & Teasdale, 2002; Bach & Haynes, 2002; in Siegel, et al., 2009). However, to truly understand it, mindfulness has to be experienced. In fact, it points to something intuitive and preconceptual. Committed practice can gradually facilitate a mindful perspective on life, even when facing significant suffering (Siegel, et al,. 2009).

The definition of mindfulness has now been refined and broadened for its use in psychotherapy. However, it is the translation of the Pali (the language in which the teachings of the Buddha were recorded originally) word *sati*. This word connotes three important aspects: *awareness*, *attention*, and *remembering* (Siegel, et al., 2009). Awareness means becoming aware of what is occurring within and around us, while attention is the ability to focus awareness. In fact, by redirecting attention, instead of trying to suppress or control intense emotions, it is possible to regulate feelings. Moreover, in this context, the word *remembering* is related to the aforementioned ones and not to memory, highlighting the importance of practicing mindfulness *intentionally* (Siegel, et al., 2009).

The mindfulness practitioner is actively working with states of mind to abide peacefully in the midst of whatever happens (Siegel, et al., 2009)

Mindful awareness has lately received a lot of interest from the field of psychotherapy. In fact, it can be considered a correction to some modern treatment trends. Specifically, many well-intentioned therapists attempt to "*solve*" a patient's problem, inadvertently bypassing self-acceptance and self-understanding (Siegel, et al., 2009). However, this amplifies emotional and behavioral problems. For this reason, the new "*mindfulness-oriented agenda*" approaches therapy through awareness and acceptance first, followed by change only as a secondary step (Siegel, et al., 2009).

7.2 The Neurobiology of Mindfulness

The goal of the meditator is the thoughtless awareness. However, what has drawn the attention of Western Science is the "*long-term trait effects of Meditation, achieved after years of training that are thought to be therapeutic*" (Rubia, 2009). These reported effects include:

1. Physically – deep relaxation and stress relief
2. Cognitively – enhanced attention skills, improved self-control and self-monitoring, better ability to inhibit irrelevant interfering external and internal activity
3. Emotionally – emotional stability, resilience to stress and negative life events, positive mood
4. Psychologically – enhanced psycho-emotional balance

Studies comparing experienced meditators to short-term ones or controls demonstrated several physiological changes. First, during meditation there is a decrease in the sympathetic nervous system activity, responsible for the fight-flight mechanism. This means reduced impulsiveness and reaction to internal and/or external stimuli. Furthermore, there is an increase in the parasympathetic activity,

crucial for relaxation and rest (Cahn and Polich, 2006; Jevning, et al., 1992; Rai, et al., 1988; Young and Taylor, 2001; in Rubia, 2009). It is important to underline that "*this wakeful hypometabolic state with parasympathetic dominance has been shown to be qualitatively and quantitatively different from simple rest or sleep*" (Rubia, 2009).

Moreover, mindfulness meditation has been shown to reduce the autonomic activity in short- and long-term practitioners compared to controls. Changes include a reduction in heart, respiratory and pulse rates, of systolic blood pressure and oxygen metabolism, and an increase of skin resistance (Rai et al., 1988; in Rubia, 2009). These physiological alterations indicate deep parasympathetic activation and therefore physiological relaxation. Specifically, it has been shown that meditating facilitates stress relief and may have a role in the prevention of stress-related illness, such as respiratory, hypertensive of cardiovascular disease (Cahn and Polich, 2006; Solberg, et al., 2000; in Rubia, 2009).

As aforementioned, mindfulness induces a state of reduced mental activity coupled with the generation of positive affect. In fact, functional neuroimaging studies have demonstrated the "*up-regulation in brain regions of internalized attention and emotion processing with meditation*" (Rubia, 2009). Electroencephalography (EEG) studies have been able to discover patterns of brain activation corresponding to feelings of thoughtless awareness and happiness in long-term meditators, compared to short-term ones (Aftanas and Golocheikine, 2001; in Rubia, 2009). Moreover, the results of these EEG studies suggest enhanced sustained attention to internal events, improved emotional regulation processing, and reduction in anxiety levels. Furthermore, the authors of these studies found enhanced connectivity in brain regions responsible for the enforcement of attentional networks and the inhibition of task-irrelevant processes (Hoelzel et al., 2007: in Rubia, 2009).

These findings suggest that during mindfulness meditation "*the reduced mental activity is mediated by increased activation of networks of internalized attention which seem to trigger the activity in regions that mediate positive emotions, while decreasing networks related to external attention and irrelevant processes*" (Rubia, 2009). Altogether, these pioneering studies demonstrate that the experience of mental silence and positive emotions during mindfulness has specific neurophysiological correlates in the activation and connectivity of regions that mediate internalized attention and positive affect (Rubia, 2009).

The aforementioned findings support the evidence that mindfulness meditation leads to an increased activity in the frontal and subcortical brain regions (Rubia, 2009). These areas are crucial in the process of sustained attention and emotional regulation. Moreover, results have shown that the most

experienced meditators have less activation in attentional networks than the less experiences ones. These findings indicate that "*at the highest level of expertise, concentration meditation may result in a less cognitively active, quieter mental state, so that attention skills become less effortful*" (Rubia, 2009). The neural efficiency hypothesis is in line with the aforementioned finding, suggesting that the most skilled persons show less activation than less skilled ones (Grabner et al., 2006; in Rubia, 2009).

7.3 Mindfulness Based Stress Reduction or MBSR

Mindfulness practice has been increasingly recognized due to its beneficial effects in dealing with different stimuli, ranging from serious psychological disorder to minor daily difficulties. In fact, recent reviews of the empirical literature (Baer, 2003; Grossman, et al., 2004; Salmon, et al., 2004; Hayes, et al., 2006; in Carmody & Baer, 2008) suggest that incorporating mindfulness in several interventions leads to "clinically significant improvements in psychological functioning in a wide range of population" (Carmody & Baer, 2008).

Mindfulness Based Stress Reduction (MBSR) is "*a clinically standardized meditation that has shown consistent efficacy for many mental and physical disorders*" (Chiesa & Serretti, 2009). It is a group program focused on cultivating mindfulness through meditation practices. The aim is to integrate the abilities acquired into everyday life as a coping resource for dealing with physical and psychological difficulties (Kabat-Zinn, 1994). Participants attend two and a half hours session, once a week for eight consecutive weeks. The classes include training in formal mindfulness practices along with group interaction. During the latter, members discuss around the challenges and the achievements they are experiencing during their daily lives (Carmody & Baer, 2008).

The class training develops along three meditation practices: sitting meditation, body scan, and mindful yoga. During the sitting meditation, "*participants use awareness of the sensations of breathing as a baseline attentional focus, while noticing any other sensation in the body, sounds in the environment, and/or cognitions and feeling states that also present themselves to attention*" (Carmody & Baer, 2008). In the body scan, members focus attention sequentially on different body parts, noticing whatever sensation may be present in the area in a non-judgmental way. During mindful yoga, postures are practiced to develop awareness during stretching and gentle movements. Moreover, participants are encouraged to apply informal mindfulness practices throughout their daily lives. The aim is to practice the full awareness of movements, sensations, and feelings associated with daily activities such as

eating, walking, etc. . Regular out-of-class practice should strengthen the ability to use mindfulness in everyday life, thus enhancing its benefits (Carmody & Baer, 2008).

The role of MBSR as a self-regulatory approach to stress reduction and emotional regulation has been demonstrated by different neurobiological studies. Moreover, it has been shown that this practice helps reducing anxiety, depression, autonomic reflexive emotional interference, physiological reactivity, negative mood states, startle response to aversive stimuli, and also distractive and ruminative thoughts and behavior (Atkinson, 2015). To some extent, these behaviors are common to every human being. For this reason, the MBSR program has raised the interest of other non-medical fields that rely on human resources.

7.4 Corporate Mindfulness

The paragraphs presented earlier showed how mindfulness influences attention and emotions, with effects on functional domains of physiology, cognition, emotion, and behavior. These domains are relevant from a medical perspective due to their influence on the psychological and physiological spheres of individuals. However, they also "*impact key workplace outcomes, including performance, relationships, and well-being*" (Good, et al., 2015). Thus, it is important to understand the current evidence on mindfulness at work, which questions it has stimulated, and if it has challenged some key assumptions within management science.

Several numbers indicate that the interest in Mindfulness is increasing. Well-renowned organizations such as Google and the US Army are applying mindfulness training with the goal of improving workplace functioning (Good, et al., 2015). Thirteen percent of US workers report "*engaging in mindfulness-enhancing practices*" (Olano, et al., 2015; in Good, et al., 2015), and by 2015 there have been over 4,000 scholarly articles on this topic (Black, 2015; in Good, et al., 2015). Mindfulness practices are often bundled into training programs, such as the aforementioned Mindfulness-Based Stress Reduction program, which has been adapted for the workplace (Good, et al., 2015).

In order to facilitate the understanding of how mindfulness might affect individuals, teams, and organizations, Darren Good and his colleagues (2015) developed the framework summarized in Figure 2. This schema relates the effects of Mindfulness on the major domains of human functioning with workplace outcomes. In fact, "*emerging research shows that enhanced functioning in these domains may mediate diverse workplace outcomes*" (e.g., Mrazek, Franklin, Phillips, Baird & Schooler, 2013; Quaglia,

Goodman, & Brown, 2015; in Good, et al., 2015). The following paragraphs will analyze in depth the components of the framework.

Attention

Researches have shown that mindfulness improves three qualities of attention: stability, control, and efficacy (Good, et al., 2015).

Attentional Stability

Notwithstanding the wandering of thoughts that individuals experience throughout their daily lives, mindfulness can stabilize attention in the present (Killingsworth & Gilbert, 2010; Smallwood & Schooler, 2015; in Good, et al., 2015). In fact, "*individuals who completed mindfulness training were shown to remain vigilant longer on both visual and audio tasks*" (MacLean, et al., 2010; Lutz, et al., 2009; in Good, et al., 2015). Moreover, the neural network indicative of mind wandering show reduced activation in experienced meditators, along with brain activity patterns consistent with sustained attention (Brewer, et al., 2011; and Pagnoni, 2012; in Good, et al., 2015). The improved attentional stability may be derived by the increased ability to recognize mind wandering and returning to present-moment focus (Good, et al., 2015).

Attentional Control

Studies discovered that meditators are less distractible, even when the distraction is emotional in nature (Allen, et al., 2012; in Good, et al., 2015). Moreover, there is neurological evidence supporting these findings. In fact, the registered brain waves of long-term meditators suggest a "*more effective identification of and disengagement from distractions*" (Cahn, et al., 2013; in Good, et al., 2015). Mindfulness supports attentional control by shaping the way in which we allocate attention and by reducing attention to distracting information (Good, et al., 2015).

Attentional Efficiency

Attentional Efficiency is the economical use of cognitive resources. Through the aforementioned increase in attentional stability and control, attention becomes more efficient. In fact, fMRI scans show that expert meditators "*use fewer resources in brain areas linked to executive attention*" (Kozasa, et al., 2012; Lutz, et al., 2009; in Good, et al., 2015).

Cognition

Cognitive Capacity

Although mental ability is generally viewed as a stable individual difference, working memory and fluid intelligence are more or less malleable aspects of cognitive capacity, (Kane & Engle, 2002: in Good, et al., 2015). Working memory allows individuals to hold and process information, linking attention and higher-order cognition, (Baddeley, 1992; in Good, et al., 2015). A series of studies conducted on diverse population suggest that "*mindfulness increases working memory capacity (e.g., Roeser, et al., 2013)*" (Good, et al., 2015). Moreover, fluid intelligence – the ability to process and respond to novel information - might also benefit from mindfulness training (Tang, et al., 2007; Gard, et al., 2014; in Good, et al., 2015).

Cognitive Flexibility

Cognitive flexibility supports adaptation through the generation of novel perspectives and responses (Walsh, 1995; in Good, et al., 2015). To this respect, mindfulness trainings have shown to improve individual's creativity and problem solving abilities (Ostafin & Kassman, 2012; in Good, et al., 2015).

Emotion

Mindfulness appears to influence emotions, which are "*the result of evaluative reactions to observed stimuli that serce to catalyze behavior*" (Frijda, 1988; in Good, et al., 2015). In fact, by guiding attention, it influences the selection of stimuli under observance, it alters their evaluation, and ultimately shapes the downstream emotional reactions (Good, et al., 2015).

Life Cycle

Mindfulness appears to shorten the lifecycle of emotional reactions by reducing the time needed to reach the peak of emotional arousal and the return to the baseline (Good, et al., 2015). Indeed, two studies reported by Darren Good and his colleagues (2015) showed that mindfulness facilitates recovery from negative emotions after both a mood induction and public speaking.

Reactivity

Neurological studies have shown a reduced threat-related neural activation among mindfulness practitioners, along with the dampening of emotional reactions to positive stimuli (Arch & Craske, 2010; Brown, et al., 2013; Desbordes, et al., 2012; Taylor, et al., 2011; in Good, et al., 2015). The processing of stimuli fostered by a mindful approach promotes more neutral evaluations - without the habitual self-reference view of experiences - thus providing a psychological distance (Good, et al., 2015).

Valence

The overall positivity or negativity of emotions is defined as emotional tone or valence. To this respect, mindfulness may inhibit habitual mental "*time travelling*" into the perceived past and future, through its influence on attention and its ability to augment psychological distance (Good, et al., 2015). Indeed, "*mindfulness trainings are associated with less negative and more positive emotional tone*" (Elberth & Sedlmeier, 2012: in Good, et al., 2015).

Behavior

Mindfulness has proved to be helpful in changing deeply ingrained, and often automatized, behaviors, such as addictions (Good, et al., 2015). It has generally been linked to aspects of behavioral health because of its ability to create a gap between stimulus and habitual response. Mindful attention, thus, enables choicefulness and consequently a more effective behavioral regulation (Good, et al., 2015).

Self-Regulation

The connection between mindfulness and self-regulation is not surprising given that "*attention to ongoing events and experiences underlies multiple theories of motivation and self-regulation*" (Good, et al., 2015). Superior self-regulation in mindfulness practitioners is supported by the key mechanism of reduced automacity (Good, et al., 2015).

Reduced Automacity

Automacity is defined as "*the ability to effortlessly engage in behaviors without conscious oversight of their operational details*" (Good, et al., 2015). Thus, when cognitive capacity is constrained, it has adaptive benefits for information processing (Chartrand & Bargh, 2002). However, this also means that stimuli are viewed through filters deriving by prior conditioning and habits, they are not impartially evaluated. To this respect, mindfulness provides a degree of choicefulness thanks to its fostering awareness of automatic habitual behaviors and operations (Good, et al., 2015). The effect of reduced automacity is "*a mental gap between stimulus and behavioral response*" (Good, et al., 2015).

Physiology

Stress Response

Strong empirical findings recognize the role of mindfulness in managing stress response, with a series of beneficial outcomes, such as improved sleep quality (Good, et al., 2015). Specifically, "*mindfulness is related to numerous neurobiological mechanisms involved in stress regulation (Creswell & Lindsay, 2014), including dampened stress reactions (e.g., less elevated cortisol) in response to a variety of*

cognitive and social threats and faster recovery to baseline levels (Brown, et al., 2012)" (Good, et al., 2015).

Neuroplasticity

Mindfulness has also been associated with neuroplasticity, that is the ability of our brain to change and adapt (Good, et al., 2015). It includes structural transformations of brain tissue (Hölzer, et al., 2010; in Good, et al., 2015), and functional transformations in patterns and regions of activation (Brewer, et al., 2011; in Good, et al., 2015). Moreover, "*meta-analysis links mindfulness training to alterations in the brain regions associated with attention, memory, self, and emotion regulation*" (Fox, et al., 2014; in Good, et al., 2015).

Aging

Preliminary evidence suggests that mindfulness training may limit age-related brain degeneration (Luders, et al., 2015; in Good, et al., 2015). In fact, experienced meditators displayed fewer age-related degradations in neural tissue and slower decline in fluid intelligence (Luders, et al., 2015; Gard, et al., 2014; in Good, et al., 2015).

Integration Into Workplace Research

The effects of mindfulness on the domains of attention, cognition, emotion, behavior, and physiology "*appear to influence a wide variety of workplace outcomes (e.g., Akinola, 2010; George, 2000; Lord, et al., 2010; Ocasio, 1997; Walsh, 1995)*" (Good, et al., 2015). Darren Good and his colleagues (2015) propose three clusters of outcomes that can be influenced through the aforementioned mechanisms: *performance*, *relationships*, and *well-being*. In the following paragraphs I will summarize only the current evidence, leaving the open questions to be discussed in future researches.

Performance

Accumulating evidence suggests that mindfulness influences a range of performance categories, "*including job, task, citizenship behavior, deviance, and safety performance*" (Good, et al., 2015). Furthermore, it is related to higher ethical and prosocial behavior, along with lower deviance (Reb, et al., 2015; in Good, et al., 2015). However, more experimental evidence is needed in order to understand how and why mindfulness predicts work performance.

Relationships

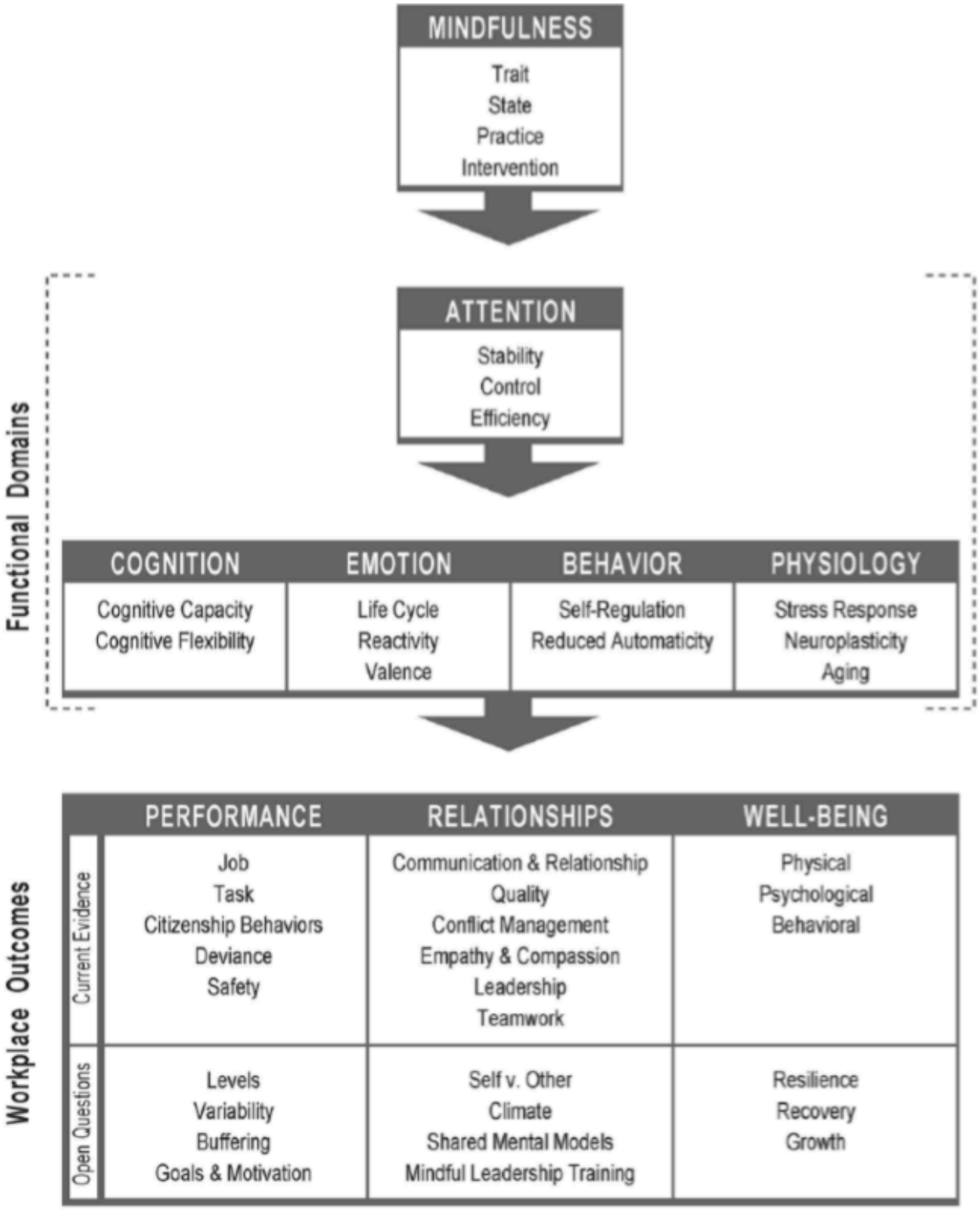
Relationships are part of every organization in the forms of leadership, teamwork, trust, psychological safety, communication, etc. (Good, et al., 2015). Although mindfulness is an individual practice, there is

evidence suggesting that it affects the quality of communication and the quality of interpersonal behavior (Beckman, et al., 2012; Beach, et al., 2013; Reb, et al., 2014; in Good, et al., 2015). Moreover, mindfulness increases empathy and compassion (Dekeyser, et al., 2008; Condon, et al., 2013; in Good, et al., 2015), which may improve relationships. In conclusion, this meditative practice influences attentional and emotional processes, such as attentional stability, emotional reactivity, emotional tone, etc., which are fundamental in understanding the beneficial effects of mindfulness on relationships (Good, et al., 2015).

Well-Being

Employee well-being, defined as the quality of their experience and functioning at work, comprises psychological, physical, and behavioral aspects (Grant, et al., 2007; Ryan & Deci, 2001; in Good, et al., 2015). Well-being is, thus, a major outcome of interest among mindfulness researchers and a major driver of mindfulness integration into organizational life (Good, et al., 2015). Moreover, employee well-being is associated with significant benefits to their performance and, more broadly, the overall organizational performance. In fact, it affects "*employee physical and psychological health, absenteeism, turnover, and in-role performance*" (Danna & Griffin, 1999; in Good, et al., 2015).

Figure 2 **Integrative Framework Relating Mindfulness to Workplace Outcomes**



7.5 Critiques

There are several critiques regarding mindfulness practice and its real versus alleged benefits. First of all, much experimental evidence has emerged from staged laboratory experiments, raising questions on generalizability. Moreover, there are variables difficult to adequately measure. Specifically, individual differences, such as intelligence or personality, influence results and might present alternative explanations to mindfulness effects (Good, et al., 2015). Moreover, the role of the context is beyond researchers' control. This variable "may moderate the relation between the quality and practice of mindfulness and the outcomes" (Good, et al., 2015).

Furthermore, many currently applied mindfulness trainings draw on well-validated ones such as the Mindfulness-Based Stress Reduction Program. However, for simplicity reasons, the formers are often truncated versions of the latter, adapted to the current needs without drawing on specific knowledge. To the present moment, little work has been done to understand the active "ingredients" of these programs. It would be thus beneficial, both in terms of validity and efficacy, to analyze in depth the effects of the different components of mindfulness trainings.

7.6 Conclusion

Neurobiological studies have proved that Mindfulness practices are beneficial for individuals in several ways. The reported long-term trait effects include: deep relaxation and stress relief; enhanced attention skills, improved self-control and self-monitoring, better ability to inhibit irrelevant interfering external and internal activity; emotional stability, resilience to stress and negative life events, positive mood; enhanced psycho-emotional balance. Darren Good and his colleagues (2015) propose three clusters of organizational outcomes that can prosper thanks to mindfulness: *performance*, *relationships*, and *well-being*. Moreover, as explained in the previous chapter (Chapter 7), acquiring emotional recognition and regulation abilities might facilitate more rational decision-making processes.

The next chapter (Chapter 9) will focus on neurobiological insights that explain how we are connected to and influenced by the environment and the people around us. Moreover, it will introduce 4 psychological needs connected to the reward system. This knowledge is beneficial because it unveils some of the basis for human interaction. Thus, it is helpful in understanding: how socialization processes are shaped by the environment; what factors influence our verbal and non verbal communication; how narratives can be tailored to satisfy psychological needs thus reducing personal sensemakings.

Ch. 8 Brain's Abilities and Human's Psychology

8.1 Introduction

In organizational contexts we are dealing with human beings and their ability to be motivated, to perform and to engage in the work assigned to them. If we can understand the very neural substrates of the human mind and moreover the basis of human interactions then we can understand where we can apply the point of leverage. (Ghadiri, et al., 2013)

In recent years there have been many breakthroughs in neuroscience. From this plethora of information, I chose to draw the attention on a few insights that I found particularly relevant and important in the context of this Thesis. In fact, the following will explain at a neurobiological level how **we are connected to and influenced by the environment and the people around us**. Moreover, it describes how **our experience and our environment build and develop our brain**. Finally, it illustrates how **positive reinforcements influence motivation and facilitate the learning processes**.

8.2 Mirror Neurons

Mirror neurons were discovered at the start of the 1990s by the neurophysiologist Giacomo Rizzolati. During an experiment, a monkey had a motor neuron of arm movement wired up to a computer. At a certain point, unrelatedly to the experiment, a researcher raised his arm to grab a snack. As he did so, the motor neuron of the monkey activated, even though the monkey's arm had not moved. At a first sight, the researcher thought of a faulty reading or a technical equipment malfunctioning. However, when he repeated the same action, the monkey's motor neuron activated again, simply by watching the researcher's intentions. These neurons were named *mirror neurons* (Appendix, Interview).

Subsequent studies confirmed the presence of mirror neurons also in human brains (Appendix, Interview). Specifically, these neurons present in the motor area of the frontal cortex usually activate when we make a hand gesture or a facial expression, as it is normally for motor neurons. However, the experiment previously described unveiled that those same neurons activated also when the subject under study simply watched other's gestures or facial expressions, without actually doing them (hence the name *mirror neurons*).

This network of neurons spread across the brain has the ability to mirror other people's intentions and actions (Ghadiri, et al., 2013). These neurons fire while we watch somebody else perform an activity and they mirror that same action in our brain as if we were doing it. Moreover, they not only activate to actions, but also to emotions and intentions. (Appendix, Interview). These findings prove that **we are connected to and influenced by the environment and the people around us**. Mirror neurons are considered fundamental elements of our social brain, of individual's ability to connect to others, and are implied in areas such as learning by imitation, empathy, and even the building of civilization (Ramachandran, 2000; in Ghadiri, et al., 2013).

There are three studies that are particularly relevant for the purpose of this Thesis. The first one proves that **mirror neurons fire to an intention or purpose, not merely to a biomechanical action**. Specifically, during this experiment, one group of monkeys had been taught to use normal clamps. The second group had been taught to use escargot clamps, where the clamp closes upon opening the hand (opposite biomechanics with respect to usual clamps). Monkeys' mirror neurons activated when the clamp closed, independently of which clamp they were watching being used. This proves that this system fires in response to purpose and not to action.

Given that teaching monkeys how to use different types of clamps is time-consuming, researchers decided to use the same monkeys again for a second experiment. They introduced a third group of monkeys with no knowledge of either clamps. When this control group was watching other monkeys using clamps, the mirror neuron's system of its participant was not firing. It only started firing after they had been taught how to use clamps. This experiment proved that **mirror neurons rely on an acquired motor asset on which to map the visual stimuli**.

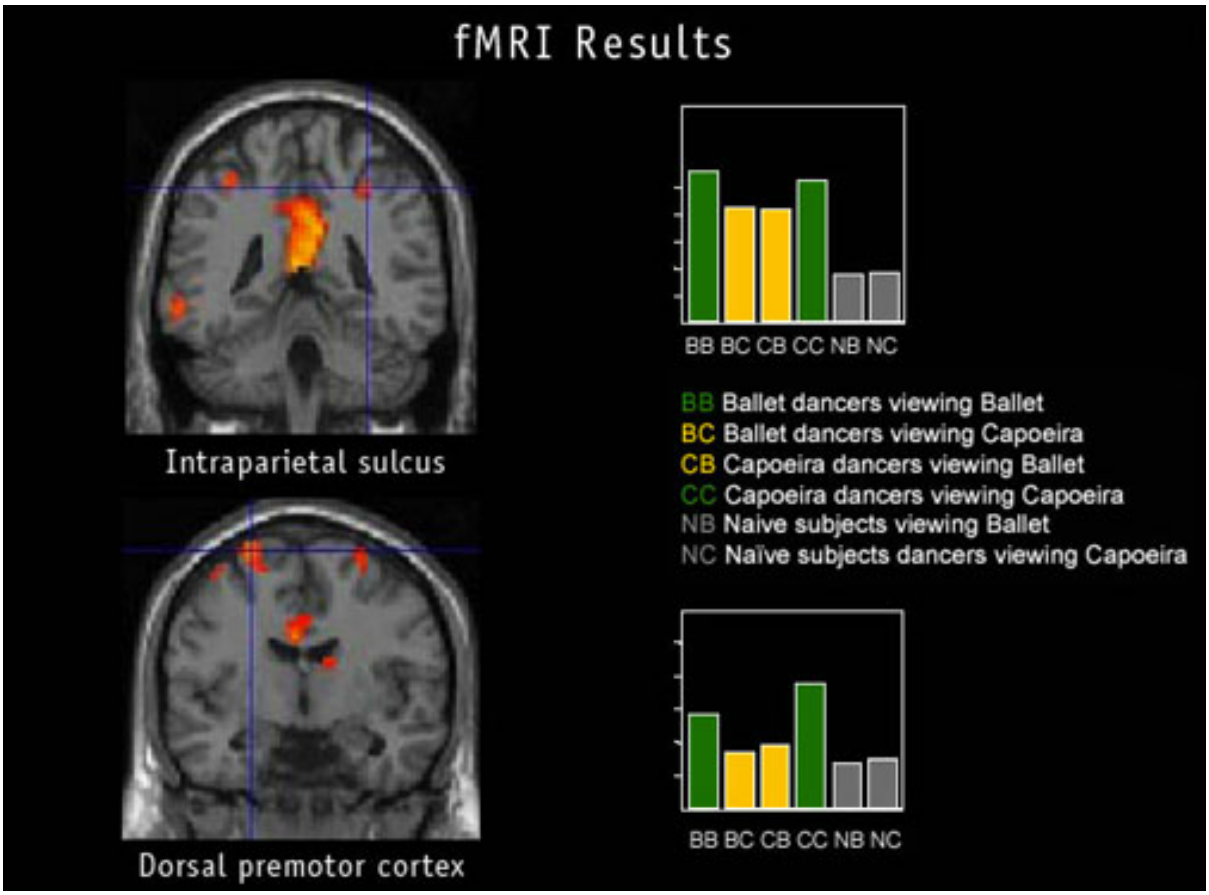
The third experiment is a further specification of the previous one. It included a group of professional ballet dancers, a group of professional capoeira dancers (a Brazilian typical art form combining dance and martial arts), and a control group on non-dancers. Their task was to watch videos of other professionals performing either ballet or capoeira moves. In the meantime, a functional magnetic resonance imaging (fMRI) was scanning them to detect changes in their brain's activity.

The results of this experiment are summarized in Figure 3, which displays the levels of activation in those brain's areas associated with the mirror neuron system. There are two important things to notice:

- The non-dancer control group had a significantly lower activation of mirror neurons with respect to participants trained in dancing

- The mirror neurons system showed more activity when a dancer saw movements he had been trained to perform

Figure 3 **fMRI Results of Ballet/Capoeira Experiment on Mirror Neurons**



This study is particularly relevant in the context of this Thesis. In fact, it shows that **the mirror neurons' system is subject to training.** Dancers experienced different levels of activation according to the degree of training they have had in particular moves. Specifically, with respect to the control group, dancers had a significantly higher activation of mirror neurons when showed dancing moves. Moreover, the activation was even higher when they watched moves belonging to the specific kind of dance they had been trained in.

To the extent to which your motor system changes, because your skills increase, also your asset of mirror neurons increases. The more things you can do, the better chances you have of mapping the actions of others (Appendix, Interview)

There is another argument that has great implications with what has been presented in the previous chapters. Several researchers claim that the mirror neurons system is involved in empathy. Specifically, two colleagues at the Social Brain Lab have found a positive correlation between the scores of a self-reporting questionnaire on empathy, and the activation of mirror systems for emotions (Appendix, Interview).

Different studies have proved that mirror neurons are related not only to the motor system, but also to the emotional and sensory one. This is one of the reasons why Giacomo Rizzolati, the aforementioned neurophysiologist, proposes a definition other than mirror *system*. He defines it as mirror *mechanisms*, because there is not a single system, but several ones dislocated in different areas of the brain (Appendix, Interview). These mirror neurons mechanisms explain at a neurobiological level how **we are connected to and influenced by the environment and the people around us**. The next session will take this insight one step further as it describes how **our experience and our environment build and develop our brain.**

8.3 Neuroplasticity

Neuroplasticity is the ability of the brain to reform and rewire itself. In fact, the brain is constantly changing, it does not have a fixed structure. The connections between neurons grow and shrink according to how much we use their pathways (Ghadiri, et al., 2013). This means that "what is in the brain is not permanent and new learning can always take place" (Kolb & Whishaw, 1998; Shaw & McEachern, 2001; in Ghadiri, et al., 2013). Plasticity drives the developing brain and all our learning processes; it is "the heart of learning and of memory" (Ghadiri, et al., 2013).

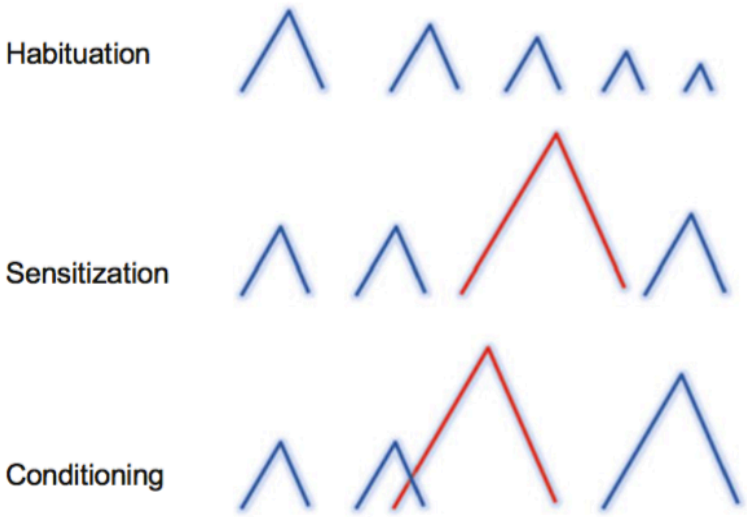
The heart of learning processes lies at this micro neuronal level. While short-term memory is a chemical mechanism (does not include a physical change), long-term memory is a physical process. Specifically, the continuous stimulation of brain cells will produce substances triggering the growth of new physical connections, such that "any new memory you form means you have changed your brain" (Ghadiri, et al., 2013).

Along with neuroplasticity there is another interesting feature of our brain relevant in this context: neuronal learning (Figure 4). The neuron, as an organic cell, learns to distinguish between signals and can change it's firing. Specifically, neurons produce an electrical output when stimulated with an electrical current. When the latter is repeated over time, the electrical output will decrease. The cell

has learned that this stimulus is repetitive and will thus lower the stimulation. This is known as *habituation* (Ghadiri, et al., 2013).

There are two other forms of neuronal learning along with *habituation*: *sensitization* and *conditioning*. When few smaller electrical signals followed by a large "shock" one are given, the stimulus that follows, same intensity as the initial small inputs, will produce an increased output. This is known as *sensitization*. Lastly, when a large shock signal is given closely following a small signal, the next small stimulus will produce a large output (Ghadiri, et al., 2013). The relevance of understanding neuronal learning lies in the fact that many concepts that have been classified as "psychological" may be grounded in the biological learning of our cells.

Figure 4 **Three Forms of Neuronal Learning**



This basic knowledge of neurons, their connection processes and the learning ones, along with brain's plasticity is greatly valuable for this Thesis. In fact, it demonstrates that **our experiences and our environment build and develop our brain, and learning something new is always possible** (Hülter, 2006; in Ghadiri, et al., 2013). In connection to this, the next session it illustrates how **positive reinforcements influence motivation and facilitate the learning processes**.

8.4 The Reward System

The complex connection of regions responsible for generating good feelings is called reward system. It is strictly related to the dopamine system that stimulates the feeling of happiness and elation through the release of dopamine hormones (Ghadiri, et al., 2013). Dopamine has also important functions as a neurotransmitter. In fact, it drives the attention system and motivation (motivation at a chemical level can be seen as a dopamine process) (Nieoullon, 2002; in Ghadiri, et al., 2013).

Researchers have split the reward system into primary and secondary rewards. The former includes those basic survival needs generating powerful feelings of happiness and satisfaction, such as food, drink, sex, etc. . Secondary rewards are those rewards not directly related to primary ones. They include information, trust, physical contact, gratitude, etc. . Thus, human beings are driven by many different factors (Ghadiri, et al., 2013).

This knowledge is important as it facilitates clearer explanations on the internal motives of human beings. Moreover, **the reward system is not relevant only for reward and motivation**. **In fact, positive reinforcement is a fundamental element of learning processes** (Ghadiri, et al., 2013). It is important to underline that the opposite, fear conditioning, is also a form of learning, but it has a negative impact because it puts the body into a stressful state (Nakatani, et al., 2009; in Ghadiri, et al., 2013).

Positive emotions play a crucial role in the brain changing processes (Rolls, 2001; in Ghadiri, et al., 2013). Through the activation of the reward centre, various processes can be stimulated. These, in turn, will contribute to "enhanced learning, habit formation and positive emotions in the brain" (Nakatani, et al., 2009; in Ghadiri, et al., 2013). Understanding these brain systems is important at an organizational level because it facilitates a deeper understanding of what drives motivation, satisfaction, and learning, thus enabling the tapping of the potential of the workforce and of each individual. To this respect, the next section will describe four psychological needs whose fulfillment increases personal well-being.

8.5 Four Psychological Needs

Psychology has a long tradition of trying to unveil human's basic psychological needs, starting from Freud (1905) and Adler (1917). The most well known model of human needs has been developed by Maslow (1954). In his hierarchical pyramid (Appendix, Figure 1), physical needs have to be satisfied first in order for the individual to focus on the psychological ones. Only after the satisfaction of the latters, individuals are able to pay attention to the spiritual needs.

Maslow's model has been vastly cited and taught in basic psychology courses, but also in business and marketing ones. However, it lacks empirical evidence. For this reason, the American psychologist Epstein (1990) developed an approach to basic psychological needs that is grounded on empirical findings of psychological research. Grawe (2004) elaborated this concept further and developed a model of Four Psychological Needs.

Klaus Grawe's model of human's basic psychological needs provides important insights on human behavior and motivational drivers. In fact, it establishes four needs present in all humans, whose violation or enduring nonfulfillment will lead to damages in mental health and well-being:

- The need for attachment
- The need for orientation and control
- The need for self-esteem and its protection and development
- The need for pleasure and avoidance of pain

It is also important to stress the fact that satisfaction of one of the needs will influence the others (Ghadiri, et al., 2013). Moreover, "*fulfillment of one or more basic needs will also stimulate reward*" (Ghadiri, et al., 2013).

These basic psychological needs define the way in which people interact with the world around them. Furthermore, based on their fulfillment or damage, individuals will form motivational goals: the approach schemata, aiming at achieving the needs; and the avoidance schemata, aimed at protecting the needs already acquired (Ghadiri, et al., 2013). People will therefore mediate their behavior and their interactions based on their own motivational schemata. This process can happen on a conscious or unconscious level (Ghadiri, et al., 2013).

In order for an organization to ensure employees' motivation, it has to guarantee that their four basic needs are satisfied. In fact, individuals' mood and performance worsen when they don't achieve their goals, even if they are not aware of them. On the contrary, attaining goals, consciously or

unconsciously determined, improves individual's moods and performances (Chartrand & Bargh, 2002).

Moreover, satisfying Klaus Grawe's needs is not just a fundamental source of motivation. It is also a source of reward. In fact, the generation of positive emotions, consciously and unconsciously, is linked to the reward system (Ghadiri, et al., 2013). This system is activated by primary rewards and by secondary ones. The primary category includes the satisfaction of the basic physiological needs, such as food, shelter, sex, etc. . The secondary rewards include trust, information, social value, status, etc. (Ghadiri, et al., 2013). It is fundamental to notice how the secondary rewards are linked to the four basic psychological needs. For example, trust is related to the attachment need and status to the need for self-esteem.

8.6 Conclusion

This last theory chapter focuses on specific neurobiological insights that I think are particularly relevant in the context of this Thesis. In fact, it provides sound explanations on how **we are connected to and influenced by the environment and the people around us** through mirror neurons. These neurons replicate other people intentions, actions, and emotions as if the observer was performing or feeling them. However, this activation is enhanced by the familiarity, experience, or training gained on that same intention, action, or emotion.

Moreover, this chapter explains how **our experience and our environment build and develop our brain** thanks to neuroplasticity and neuronal learning. In fact, connections between neurons grow and shrink according to how much we use their pathways. This means that our brain can always learn something new if properly stimulated.

Finally, the insights provided in this chapter illustrate how **positive reinforcements influence motivation and facilitate the learning processes**. In fact, positive emotions activate the reward system that contributes to improve learning abilities. Moreover, they influence motivation and satisfaction, thus increasing overall well-being. Satisfaction of the four psychological needs is one of the sources of positive emotions that can have great impact on reward and motivation.

Ch. 9 Discussion

9.1 Introduction

In this chapter I relate and discuss the theories and findings presented in the previous ones. The purpose is to provide an answer to the Research Question: **How can mindfulness practice influence socialization processes through emotional intelligence and sensemaking narratives?**. The first section will deal with the sources of miscommunication that hinder socialization processes in relation to the role of emotions and of psychological needs on our conscious and unconscious systems. This should provide an answer for the First Subquestion. The second section will focus on the Second Subquestion. Specifically, it will analyze how mindfulness practices increase several individual's abilities. Moreover, it will draw on neurobiological findings to clarify how these acquired qualities facilitate effective communication. Finally, the last section will connect the two subquestions in the attempt of providing a sound and coherent answer to this Thesis's Research Question.

9.2 First Subquestion

What are the sources of miscommunication that hinder socialization processes?

As defined in Chapter 4, socialization processes are those formal and informal practices through which **organizations try to influence the adaptation procedures of individuals**. In fact, the higher frequency of employment turnover characterizing the present working market requires greater mobility, flexibility, and adaptability from both organizations and single individuals. In this context, organizational socialization is extremely important as it facilitates individuals' identification and sensemaking processes. As explained in the previous chapters, this thesis adopts a co-construction perspective. This means that the organizational reality is constructed through talks and other symbolic behaviors and it entails some sort of mutual understanding. However, in order to facilitate the comprehension of the variables influencing the socialization processes, I will treat socialization practices as if they were a one-way exchange from the organization to the organizational members.

Organizational socialization is a communicative process aiming at transmitting two classes of information that have to be learned in order for individuals to adapt to the organizational context: *role-related* and *cultural* information. This information is transmitted differently according to the

specific socialization stage individuals are in. In fact, communication needs to be tailored according to whether the organizational member: has not entered the organization yet (*anticipatory socialization*), has recently entered the organization (*encounter*), or has already become an organizational insider (*metamorphosis*).

There are four organizational communication processes aimed at facilitating information sharing during the various socialization stages: recruiting and interviewing; newcomer information-seeking tactics; role development processes; and organizational exit. However, as Eisenberg (2007) pointed out, the organizational life is so complex that miscommunication is inevitable. I will, thus, analyze each socialization processes singularly to provide explanatory examples to its sources of miscommunication.

9.2.1 Miscommunication during Recruiting and Interviewing

The employment interview is an important step of the anticipatory socialization stage. In fact, it serves several purposes. On the one hand, the applicant is using the interview to find out more about the organization. On the other hand, the interviewer uses this tool to recruit and make decisions about potential employees. Specifically, the selection process aims at assessing job-related aspects, such as past experience, knowledge, abilities, and intelligence. Moreover, it should also serve the function of selecting possible members whose values and beliefs are compatible with the organizational ones.

The contact between the interviewer and the potential employee during the process of recruiting and interviewing is, at least at the beginning, minimal. The interviewer is the one leading the conversation, trying to gather relevant information on the potential employee. Moreover, the role-related information that is necessary for the interviewer is usually defined in detail in the job description. For this reason, I believe that misunderstandings regarding the role-related information shared are quite a negligible problem.

For what concerns cultural information, there are different variables to consider. The organizational representative is entitled to assess whether the potential employee matches the organization's parameters for what regards beliefs, values, personality traits, etc. . This process is obviously based on the interviewer's personal perceptions about the interviewed and about the organization. However, as explained in Bechara and Damasio's (2005) Somatic Marker Hypothesis (chapter 7), individuals' cognitive processes might become overloaded and insufficient when they face complex and uncertain

decisions. In such case, different stimuli trigger somatic markers that are then associated to produce a net somatic state.

When individuals are presented with primary or secondary inducers "*they automatically and obligatorily elicit a somatic response*" (Bechara & Damasio, 2005). In general, working memory and decisions are biased by emotions to optimize behavior. However, these emotions can be misleading. As explained in chapter 7, they can be triggered by stimuli unrelated to the task at hand. In such case, the emotions evoked are not informative, but they still result in maladaptive decisions bias. This influence may occur unconsciously, via the brainstem and the ventral striatum, or consciously, involving higher cortical cognitive processing.

A powerful case is provided by how emotions can influence the dialogue during the interview. In this context, the recruiter is expected to make rational decision-makings based on the information shared. However, it can easily be imagined how the tone of the conversation can influence the organizational member. Assume that the potential employee recounts a story that makes the interviewer laugh. This stimulus might influence the organizational member towards a more positive mood. However, as previously explained, people who are positive and optimistic tend to place more trust in their environment (Fiedler, 1988; in Ghadiri, et al., 2013). This stimulus, related to the interviewed but not relevant to assess his potential fit, generated an emotion that might have an impact on that precise interpersonal interaction. In fact, other things being equal, we can expect that an organizational member will recruit a person he has feelings of trust for.

The regions responsible for generating good feeling (Reward System) are influenced not just by external stimuli, but also from internal ones. The four psychological needs, explained in chapter 9, have a direct impact on the reward system and, hence, on emotions. An explanatory example is provided by how the violation of one of these needs can influence goal attainment. In the context of an interview, it is plausible to assume that the primary goal of the interviewer is to find a valuable match to the organization's needs. However, during the conversation, the interview might be distracted by irrelevant thoughts. Assume that the interviewer has recently been scold by his superior for taking a longer than usual break. In such scenario, it is reasonable to presume that his/her psychological needs for self-esteem and pleasure are endangered.

As Ghadiri and colleagues (2013) postulated, individuals form motivational goals based on the fulfillment or damage of their needs. Moreover, as explained in chapter 6, people tend to attribute positive outcomes to the self and negative ones to external factors (attributional egotism). In the

aforementioned case, the interviewer's goal might switch towards the fulfillment of the endangered need. He/She might, thus, depict the organizational reality and culture in a way that does not reflect reality (as, for instance, more rigid on working hours), but that justifies what has previously occurred with his superior. Moreover, individuals' mood and performance worsen when they don't achieve their goals, even if they are not aware of them. It is important to underline that this processes might happen both on a conscious and on an unconscious level (Ghadiri, et al., 2013).

The examples provided might cause miscommunication during the process of interviewing and recruiting. In fact, in the first scenario the positive emotions generated during the conversation might bias the interviewer, clouding his/her rationality, and moving the attention away from the relevant information. Moreover, in the second case, the interviewer might miscommunicate the actual organizational reality and culture in favor of fulfilling his/her needs. This will, however, bias the potential employee's sensemaking regarding the organizational culture.

Another straightforward example clarifies how easy it is to incur in miscommunication. An interviewer might warn the potential employee about the hard work that is expected during particularly demanding projects. The interviewed will resort to his/her past experience to interpret this message. The personal definition of "hard work" might range from increased stress during normal working hours until overnight work. It is, thus, reasonable to assume that miscommunication might result from a different interpretation clouding the sender's intended meaning.

It is important to underline that miscommunication is inevitable. Individuals resort to personal idiosyncratic knowledge and experiences to understand and clarify aspects of their working life. In fact, organizational actors "*are strategically motivated to determine their own highly personal interpretation of what has occurred*" (Brown, et al., 2008). Each circumstance can, thus, be interpreted with multiple facets. Moreover, the unconscious influence of emotions and psychological needs, more or less related to the situation, bias and direct our thoughts, feelings, decision-making processes, etc. . This means that our interpretation of occurrences might also be influenced by unrelated stimuli. Miscommunication is thus a natural part of socialization because it is impossible to control individuals' sensemaking processes.

9.2.2 Miscommunication during Newcomer Information-Seeking Tactics

The newcomer information-seeking tactics are a critical aspect of the encounter socialization phase. During this adaptation attempt, new employees are proactively seeking information that will help them understand their new working roles, along with the norms and values of the organizational culture. The newcomers try to gather relevant information through overt questions and/or in covert ways, such as through observations, disguised conversation, surveillance, etc. . Moreover, information-seeking tactics depend on the extent to which uncertainty needs to be reduced and on the social costs of seeking such information.

As explained in chapter 4, social costs include embarrassment, fear of irritating coworkers with repeated requests of information, etc. . Hence, information-seeking tactics depend on personality and on the perception of uncertainty and of social costs. It is important to underline that these attitudes can be influenced through socialization processes. As an example, employees can facilitate the use of such tactics by creating relationship-building opportunities (Flanagin & Waldeck, 2004; in Miller, 2014). In this complex situation, individuals are subject to a multitude of internal and external forces. As socialization aims at influencing the adaptation processes of newcomers, it becomes relevant now to provide examples on how miscommunication might arise.

A new employee might use overt questions to gain deeper understanding of norms and believes inside the organization. However, as seen in chapter 5, people do not have the necessary time, energy, or good reasons to be completely open with colleagues (Parks, 1982; in Eisenberg, 2007). Furthermore, there are often statements of collective identity that define the organization's core believes and values. However, organizational members appropriate those narratives and layer it "*with interpretations that incorporated their particular identity concerns*" (Brown, et al., 2008). Miscommunication might, thus, arise due to the personal sensemaking of the person to which the newcomer has been asking cultural information.

Moreover, as it was the case for the recruiting and interviewing phase and as it will be for the next socialization processes, the communication of information is influenced by emotional reactions and by psychological needs. Newcomers' levels of self-esteem and tolerance for ambiguity may affect their info-seeking behaviors (e.g. people with low self-esteem are less likely to search for information). For instance, a new employee might feel his/her attachment needs as not fulfilled in his/her personal life. Argang Ghadiri (2013) provides a clear example of how the organization can support the newcomer in this adaptation process meeting this particular need. He suggests assigning the new employee a

mentor. The latter knows the structure, symbols, idiosyncrasies, etc. of the company. Moreover, he is available for corporate and personal problems. The mentor should, thus, be seen as a trusting figure to which the newcomer can turn in times of uncertainty.

This proactive approach of the company facilitates the bonding between the organization and the new employees (Ghadiri, et al., 2013). Moreover, reducing social costs and uncertainty should facilitate the fulfillment of the attachment need. This will, in turn, facilitate the generation of positive emotions, consciously or unconsciously. In fact, "*fulfillment of one or more basic needs will also stimulate reward*" (Ghadiri, et al., 2013). As previously explained, a positive mood influences individuals both on a psychological and on a physical level. Specifically, emotions come in combination with chemical processes in the brain and body, thus influencing the affective impact. In this case, examples of affective impacts are increased energy, focus, motivation, etc. (Ghadiri, et al., 2013). This change should facilitate communication as it reduces disturbance coming from irrelevant stimuli.

9.2.3 Miscommunication during Role Development Processes

The third stage of socialization is the role development process, which begins at organizational entry and continues throughout the metamorphosis phase. It concerns the ways in which individuals interact in the attempt of defining and developing their organizational roles. The importance of this stage lies in the assumption that organizational members accomplish their work through their organizational role (Miller, 2014). Specifically, this section recalls the assumption made in chapter 6 about the fact that identities subjectively conceived are formed, repaired, maintained, strengthened, and revised through narratives, in order to provide coherence and continuity.

According to Boje's book *Storytelling Organizations* (2008), each organizational member is an actor in the workplace theatre. People become known by their story, which shapes their perceptions, goals, motives, their relationship with others, etc. . As Boje (2008) defines it, Storytelling Organization is about "*how people and organizations make sense of the world via narrative and story*". Moreover, narratives supply a given structure of meaning, minimizing the role of interpretations (Pedersen & Johansen, 2012).

As explained in chapter 6, stories have cognitive and psychological effects on listeners, allowing the speakers to make strongly persuasive assertions through narrative discourse (Witten, 1993). In fact, narratives are important communicative forms for emotionally involving participants, facilitating the achievement of a sense of collective participation, shared experience, and psychological investment

(Bormann, 1983; Fisher, 1984; Martin, 1982; in Witten, 1993). Moreover, they facilitate the understanding of parameters and obligations inside the organization, along with behavioral norms in service of the organization's goals (Witten, 1993).

In summary, through frames and names, narratives covertly impart values. They have the ability to channel attention towards certain elements and away from others, "*setting parameters around elements that are salient and meaningful*" (Weick, 1979; in Witten, 1993). Values transmitted through narratives can enable or suppress actions by influencing the ability of people to identify what they are experiencing (Witten, 1993). However, as previously stressed, shared narrative may be appropriated, modified and embellished by organizational members to make idiosyncratic sense, retrospectively, of ambiguous actions and outcomes. Such individual effort may result in notable disagreement due to the fact that organizational actors "*are strategically motivated to determine their own highly personal interpretation of what has occurred*" (Brown, et al., 2008).

The example provided in chapter 6 is straightforward. In that specific case, individuals authored a self-serving version of events in order to preserve and enhance their self-esteem need. They used attributional egotism and impression management to influence others' people understandings of the situation, their roles, and the tasks at hand. Indeed, "*sensemaking narratives are not just about explanation and self-insight but communication and persuasion*" (Brown, et al., 2008). Miscommunication might, thus, arise because sensemaking is a process of personal idiosyncratic interpretation that can be influenced through narratives from the organization, but is undoubtedly shaped by organizational members' past experiences, needs, goals, etc. .

9.2.4 Miscommunication during Organizational Exit

Organizational exit is the fourth and last step of organizational socialization. It involves the person who is leaving the company and the colleagues that remain in the organization. Moreover, it is influenced by and has an influence on the leaver's personal social environment (his/her families, friends, etc.). This experience might involve diverse emotions from all the concerned parties, such as happiness or relief (e.g. if the leaver was a disliked coworker), resentment (e.g. if coworkers must take on additional work, or if the family's welfare is endangered), guilt (e.g. if the ones who stay were spared in a layoff of downsizing).

During organizational exit, effective communication is particularly difficult due to all of the aforementioned emotions at stake, which are obviously strictly related to the individuals' psychological needs. Moreover, there are many differences in each organizational exit that are due to very case-based variables such as personal and organizational goals, motives, desires, needs, etc. . However, we can assume four steps that characterize this phase: preannouncement, announcement, actual exit, and postexit. Moreover, it is important to understand whether the disengagement process is voluntary or imposed by the organization.

The purpose of organizational communication during this step is reducing uncertainty for both those leaving and those staying within the company. It should focus on solidifying that the disengagement is a "good thing", thus creating justifications for why the organizational member is, either voluntarily or involuntarily, leaving the organization. I believe that communication in the form of social support is critical in this process. For instance, if the company is firing an employee due to a downsizing, it is important to provide narratives fulfilling the endangered psychological needs of the ones who stay. In fact, we can expect the employees to be afraid of being the next ones in line to be fired, thus threatening their need for attachment, and for orientation and control. In such scenario, effective communication might be hindered by a lack of openness from the employees. In fact, the situations becomes more complex and it is difficult to assess "*how much to reveal, how to reveal, what to reveal, when to reveal, and to whom to reveal*" (Eisenberg, 2007). The next section will focus on how mindfulness practice can limit miscommunication.

9.3 Second Subquestion

How can mindfulness limit miscommunication?

As defined in Chapter 8, mindfulness is the practice of focusing attention to the present moment and of decreasing immediate reactivity to what is happening in that same moment. Its primary goal is to reduce the overall levels of suffering and increase the sense of well being of the practitioner. Mindfulness, moreover, improves the ability to know what is happening as it is happening through three channels: awareness, attention, and remembering. Awareness means becoming aware of what is occurring within and around us, while attention is the ability to focus awareness. Moreover, in this context, the word *remembering* highlights the importance of practicing mindfulness *intentionally* (Siegel, et al., 2009).

There are several important long-term trait effects proved by researches on the neurobiology of mindfulness practice:

5. Physically – deep relaxation and stress relief
6. Cognitively – enhanced attention skills, improved self-control and self-monitoring, better ability to inhibit irrelevant interfering external and internal activity
7. Emotionally – emotional stability, resilience to stress and negative life events, positive mood
8. Psychologically – enhanced psycho-emotional balance

The aim of this section is to understand how practicing mindfulness can be used to facilitate effective communication.

9.3.1 Mindfulness, Emotional Recognition, and Emotional Regulation

In the first subquestion section I have underlined the role of emotions in decision-making, and explained how they bias and drive behavior. The following paragraphs will focus specifically on those emotions arising consequently to stimuli not related to the task, which can influence individuals at an unconscious level. In fact, they might: direct the attention away from the task at hand; unconsciously impart motives; change the overall mood; etc., thus making it easier for miscommunication to arise.

Studies regarding mindfulness have shown several physiological benefits imputable to this practice that might be beneficial for a more effective communication. Recalling chapter 8, we have seen how meditation reduces impulsiveness and reaction to internal and/or external stimuli. This ability, coupled with the strengthened awareness about the situation and our reaction to it contributes in facilitating rational decision-making. In fact, the EEG studies reported in chapter 8 suggest that mindfulness enhances sustained attention to internal events and improves emotional regulation, along with enhancing connectivity in brain regions responsible for the inhibition of task-irrelevant processes (Rubia, 2009).

Furthermore, researches have shown that mindfulness improves attentional stability, control, and efficacy (Good, et al., 2015). The ability of stabilizing attention in the present moment limits mind wandering. In fact, "*individuals who completed mindfulness training were shown to remain vigilant longer on both visual and audio tasks*" (MacLean, et al., 2010; Lutz, et al., 2009; in Good, et al., 2015). Moreover, studies discovered that meditators are less distractible, even when the distraction is emotional in nature (Allen, et al., 2012; in Good, et al., 2015).

The fact that mindfulness supports attentional control by shaping the way in which we allocate attention and by reducing the influence of distracting information is particularly important for what concerns communication. In fact, I assume that these abilities can limit miscommunication as they reduce interferences coming from not pertinent stimuli. By guiding attention, mindfulness can improve the selection of stimuli under observance; alter their evaluation; and ultimately shape the downstream emotional reactions (Good, et al., 2015). Moreover, the processing of stimuli fostered by a mindful approach promotes more neutral evaluations - without the habitual self-reference view of experiences - thus providing a psychological distance (Good, et al., 2015).

Furthermore, mindfulness has generally been linked to aspects of behavioral health because of its ability to create a gap between stimulus and habitual response. Mindful attention, thus, enables choicefulness and consequently a more effective behavioral regulation (Good, et al., 2015). This should enable a more conscious understanding of the psychological and physiological changes imputable to emotions, thus facilitating the understanding of their pertinence to the task at hand. As an example, a mindfulness practitioner should be able to better understand what is driving his mood. In case he/she realizes that his/her emotional state is imputable to stimuli other than the job being performed, he can acknowledge them and subsequently redirect his attention to the performance of the task. This should facilitate communication, as the conversation wouldn't be biased or clouded by irrelevant emotional reactions.

Finally, as explained in the framework of mindfulness integration into workplace (chapter 8), mindfulness practices "*appear to influence a wide variety of workplace outcomes (e.g., Akinola, 2010; George, 2000; Lord, et al., 2010; Ocasio, 1997; Walsh, 1995)*" (Good, et al., 2015). In fact, although mindfulness is an individual practice, there is evidence suggesting that it affects the quality of communication and the quality of interpersonal behavior (Beckman, et al., 2012; Beach, et al., 2013; Reb, et al., 2014; in Good, et al., 2015). Moreover, mindfulness is associated with a general improvement in employee's well being. This, in turn, is correlated with significant benefits to his/her performance and, more broadly, the overall organizational performance. In fact, mindfulness practice affects "*employee physical and psychological health, absenteeism, turnover, and in-role performance*" (Danna & Griffin, 1999; in Good, et al., 2015). The next section will focus on how understanding oneself better can be beneficial in a broader organizational context.

9.3.2 Mindfulness, Mirror Neurons, and Neuroplasticity

As described in chapter 9, the mirror neurons system has the ability to mirror other people's intentions, actions, and emotions. The major insights gathered through the analysis of the experiments presented earlier are that:

- Mirror neurons rely on an acquired motor asset on which to map the visual stimuli
- The mirror neurons' system is subject to training
- We are connected to and influenced by the environment and the people around us

The relevance of these findings is twofold. On the one hand, we have seen that mindfulness might facilitate communication through the better recognition and regulation of one's own emotions. At the same time, developing a better understanding of ourselves should enhance the understanding of others. Indeed, mirror neurons allow us to comprehend other people's emotions and intentions. Augmenting the knowledge about us should improve the asset on which we map stimuli, in fact, "the more things you can do, the better chances you have of mapping the actions of others" (Appendix, Interview). **The assumption is that learning to recognize my emotions will allow the mirror neurons system to train in identifying other people's ones.**

On the other hand, there is another important implication of the findings on mirror neurons and neuroplasticity in relation to the social environment. Indeed, as the experiment with ballet and capoeira dancers showed, mirror neurons develop thanks to neuroplasticity. The fact that our experiences and our environment build and develop our brain is particularly important to understand what facilitates effective communication. Regardless of the unconscious limitations resulting from personal emotions and psychological needs, miscommunication might arise also from failed common understanding, goal attainment, openness, and dialogue. To this respect, actually being part of the organizational environment should facilitate the achievement of a, more or less, shared collective identity, as I will explain in the next section.

9.3.3 Mindfulness, Emotional Intelligence and Sensemaking Narratives

As seen in chapter 6, individuals make idiosyncratic interpretation of occurrences based on their past experiences, needs, desires, and motives. Moreover, the organizational reality is constructed by ongoing symbolic interaction along with the objectification of events into structures of meaning (Berger & Luckmann 1966; in Witten, 1993). This means that through talks and other symbolic behaviors, people construct an understanding of reality that is intersubjective, but that has to be more or less agreed upon.

To this respect, narratives are powerful means through which individuals define themselves and the organization. Specifically, from the organization's viewpoint, stories supply a given structure of meaning, minimizing the role of interpretations (Pedersen & Johansen, 2012). Indeed, well-constructed narratives foster collaboration and interaction by persuading organizational members in participating and making common sense of the organizational life. In fact, stories are especially capable of capturing attention "*through features of their language as the use of active voice, present tense, repetition, and vivid and concrete details through which plots and episodes are unfurled*" (McLaughlin, 1984; Wilkins, 1983; in Witten, 1993). Furthermore, since immediate language is memorable, the salience of these stories and of their details is likely to persist over time (Martin, 1982; Yuille & Paivio, 1969; in Witten, 1993).

However, narratives are much more than **information conveyers**. On the one hand, they are an important communicative form capable of emotionally involve participants, which allows the achievement of a sense of collective participation, shared experience, and psychological investment (Bormann, 1983; Fisher, 1984; Martin, 1982; in Witten, 1993). This feature allows the impartment of values, but also the exercise of covert control in the workplace. In fact, narratives facilitate the understanding of parameters and obligations inside the organization. Moreover, it is partly through the recounting of narratives that hierarchical relationships in organizations are imaged (Witten, 1993).

On the other hand, narratives have the ability to channel attention towards certain elements and away from others. In fact, values transmitted through narratives can enable or suppress actions by influencing the ability of people to identify what they are experiencing (Witten, 1993). This implies that stories can be used to provide **explanation for occurrences**, and can facilitate **meaning creation**. In fact, they should reduce miscommunication as they **minimize the role of interpretations**, which are subject to individuals' idiosyncrasies. To this respect, mindfulness can support the aforementioned narratives' abilities as the following section explains.

I have previously explained how mindfulness improves self-awareness and self-regulation. It is fundamental to notice that these two emotional intelligence's dimensions are beneficial for two other ones: empathy and social skills. Indeed, as described in chapter 7, empathy is the ability to put oneself in another's position, sharing their emotions and standpoint, and it generally goes hand in hand with a clear understanding of one's own emotions (self-awareness). Secondly, social skills are about collaborating and relationship building. They imply the ability to adapt, inspire, and influence through effective communication skills. As previously mentioned, self-regulation is the ability to choose how to

respond to stimuli. This ability that can be fostered through mindfulness can facilitate the way in which we cooperate, reducing external interferences and impulsive behavior.

Empathy and social skills fostered through mindfulness are important abilities for developing organizational narratives. In fact, I have frequently mentioned that organizational members' sensemakings (i.e. the processes of interpretation and meaning production) is fundamentally tied to individual's psychological needs, past experiences, etc. . Through a better understanding of other's emotions, standpoints, desires, and motives (empathy) and through an improved ability to inspire and influence (social skills), organizational members might be able to develop more powerful narratives aimed at addressing those specific needs. By attending to individual differences in sensemaking it may be possible to better understand what creates ambiguity and disagreement inside organizations. The following section will provide practical and concrete applications of the aforementioned findings to communication during socialization processes.

9.4 Research Question

The first subquestion dealt with the sources of miscommunication that hinder socialization processes, while the second subquestion focused on how mindfulness practice can facilitate a more effective communication. The following will triangulate the findings in the attempt of providing an answer to this Thesis's Research Question:

How can mindfulness practice influence socialization processes through emotional intelligence and sensemaking narratives?

9.4.1 Mindful Communication during Recruiting and Interviewing

As explained in the first subquestion, the primary goal of the recruiting and interviewing process is to assess whether the interviewed is a potential fit for the open position. Miscommunication might arise during this process due emotional interferences triggered by irrelevant stimuli, such as a personal "good-feelings" towards the interviewed, the violation of one or more individual's psychological needs, etc. . It is important to stress again that perfectly effective communication is impossible as people rely on idiosyncratic interpretations of information based on personal past experiences, motives, needs, etc. . However, I believe that through mindfulness it is possible to, at least, reduce miscommunication coming from the interviewer (i.e. the organizational representative responsible for this socialization process).

Specifically, mindfulness might facilitate a more rational decision-making process. In fact, through emotional recognition, it might foster a more conscious awareness of the physical and psychological reactions to stimuli. Moreover, by increasing emotional regulation, it should be easier for the interviewer to return to a more neutral state after an emotional arousal. In addition, researches have shown that mindfulness improves attentional stability, control, and efficacy (Good, et al., 2015). This ability limits mind wandering and thus reduces the influence of external stimuli. In fact, studies discovered that meditators are less distractible (Allen, et al., 2012; in Good, et al., 2015).

Furthermore, the organization can develop powerful narratives aimed at conveying relevant cultural information. This would limit the role of interpretation from the interviewed, but also reduce the bias coming from the interviewer. In fact, as the example mentioned earlier showed, the interviewer might miscommunicate the actual organizational reality and culture in favor of fulfilling his/her needs. Recounting narratives developed and established by the organization, which would comprise organizational values and workplace, would limit the interviewer's ability to guide the potential employee's sensemaking.

9.4.2 Mindful Communication during Newcomer Information-Seeking Tactics

During this socialization phase, the new organizational member seeks information regarding his/her role and the organizational culture in different ways. According to the extent to which uncertainty needs to be reduced and to the social costs of seeking information, the newcomer will use overt and/or covert means. However, as previously mentioned in each socialization process, the communication of information is influenced by emotional reactions and by psychological needs.

As explained earlier, the organization can support the adaptation of the new organizational member in several ways. A mentor available for personal and corporate problems, for example, can be seen as a trusting figure who is able to provide information about organizational relationships, culture, roles, etc. . This solution reduces the levels of uncertainty, as the mentor supplies relevant information, and lowers social costs. In fact, a figure of reference whose specific task is to help the newcomer should result in him/her being less afraid of being inappropriate or annoying.

In addition, as we have seen in chapter 8, we are supported by a mirror neurons' system capable of understanding other people's actions, emotions, and intentions. This mirror mechanism has the ability to adapt to new contexts upon experience or training and has proved fundamental in learning by imitating. For this reason, people who have been in the organization longer have a greater asset of

corporate-related skills and knowledge. Thus, I assume that the newcomer could benefit from the extensive mentor's experience through imitational learning. This should further reduce miscommunication deriving from divergent understandings, goals, desires, etc. .

Finally, a greater benefit could result from a mentor who has been practicing mindfulness. Specifically, as self-awareness and self-regulation increase, also empathy and social skill do. A mindful mentor would be better able to tailor the dialogue according to the newcomer's needs if he is able to put himself in the new employee's position, sharing his emotions and standpoints. Furthermore, increased social skills imply the ability to inspire and influence through effective communication skills (Goleman, et al., 2001; in Ghadiri, et al., 2013).

Besides assigning a mentor, there are other relationship-building opportunities that the company can proactively implement. As an example, I assume that organizational team-building activities facilitate the fulfillment of the attachment needs of newcomers. This, in turn, should result in a more positive mood that increases energy, focus, motivation, etc. (Ghadiri, et al., 2013). Such change should facilitate communication as it reduces interferences coming from external stimuli.

9.4.3 Mindful Communication during Role Development Processes

The third stage of socialization is the role development process, which concerns the ways in which individuals interact in the attempt of defining and developing their organizational roles. Moreover, I previously explained that identities subjectively conceived are formed, repaired, maintained, strengthened, and revised through narratives, in order to provide coherence and continuity. In this phase, the organizational members and the company develop stories that shape each others' perceptions, goals, motives, their relationship with others, etc. .

From the organizational perspective narratives are important communicative forms for emotionally involving participants, facilitating the achievement of a sense of collective participation, shared experience, and psychological investment (Bormann, 1983; Fisher, 1984; Martin, 1982; in Witten, 1993). Moreover, they facilitate the understanding of parameters and obligations inside the organization, along with behavioral norms in service of the organization's goals (Witten, 1993). A mindful communication approach from the organizational standpoint should focus on developing narratives addressing human's needs for attachment, orientation, self-esteem, and pleasure. This way, interferences coming from the unfulfillment of those basic psychological needs would be limited.

From the organizational member's perspective, effective communication is hindered by their idiosyncratic personal and professional past experience, desires, motives, etc., along with their individual sensemaking processes. It is impossible to account for each scenario, and this is one of the reasons why this thesis focuses on the organizational perspective and not on the single members' one. Moreover, discussing individual's mindfulness practice in relation to communication would imply a series of assumption regarding the alignment of personal goals, desires, etc, with the company' s ones.

However, it is worth mentioning that Darren Goods and his colleagues (2015) propose three clusters of outcomes that benefit from mindfulness practice. Boosted *performance* includes "*job, task, citizenship behavior, deviance, and safety performance*" (Good, et al., 2015). Moreover, it is related to higher ethical and prosocial behavior (Reb, et al., 2015; in Good, et al., 2015). Improved *relationships* regards the quality of communication and of interpersonal behavior (Beckman, et al., 2012; Beach, et al., 2013; Reb, et al., 2014; in Good, et al., 2015). Moreover, mindfulness increases empathy and compassion (Dekeyser, et al., 2008; Condon, et al., 2013; in Good, et al., 2015), which may improve relationships.

Finally, enhanced *well-being* is associated with significant benefits to the quality of employees' experience and functioning at work. Moreover, it is associated with significant benefits to their performance and, more broadly, the overall organizational performance. In fact, it affects "*employee physical and psychological health, absenteeism, turnover, and in-role performance*" (Danna & Griffin, 1999; in Good, et al., 2015). These three clusters of outcomes fostered through mindfulness might be beneficial for a more effective communication as they influence citizenship and prosocial behavior, the quality of communication, empathy abilities, and employee's physical and psychological health.

9.4.4 Mindful Communication during Organizational Exit

The fourth and last phase of organizational socialization is the employee's exit. It involves the person leaving the company, his/her social environment, and the former colleagues remaining in the organization. It is a highly emotional process that is influenced by contextual variables such as the reasons for the disengagement, the working environment, personal and professional desires, etc. . The purpose of organizational communication during this phase is to reduce uncertainty for both those leaving and those staying within the company.

As seen in the first subquestion, the company should focus on solidifying that the disengagement is a "good thing", creating justifications for why the organizational member is, either voluntarily or

involuntarily, leaving the organization. As an example, the organization could develop narratives that address the possibly endangered psychological needs. Indeed, as previously explained, unfulfilled basic needs result in personal motivational schemata that bias and direct behavior. Moreover, they generate negative emotions that might cause interferences during information-sharing conversations.

Furthermore, I believe it would be beneficial for organizational representatives to use a mindful approach to communication. Indeed, practicing mindfulness increases empathy and social skills. The former would facilitate the understanding of employees' emotional reactions, while the latter could be used to tailor communication in order to tap the endangered psychological needs. The following chapter will collect the topics discussed until now to formulate this Thesis' Conclusions.

Ch. 10 Conclusions

When formal and informal communications are well-designed and work towards investing the newcomer [or employees in general -- Ed.] in the company's goals and culture, they can be successful in enhancing commitment and reducing turnover (Allen, 2006; in Miller, 2014)

Inspired by the increasing mobility, flexibility, and adaptability required in the current working environment, this work aimed at deepening the knowledge regarding socialization processes. It focused on communication as a task- and cultural-related information conveyer. Moreover, it applied neurobiological insights to understand whether mindfulness meditation practice can limit the sources of miscommunication. The approach has been based on a triangulation of theories and findings belonging to the fields of behavioral economics, organizational communication, neuroscience, and psychology.

Firstly, I analyzed the possible sources of miscommunication hindering socialization processes. The focus has been on external non-task-related stimuli, human's basic psychological needs, and idiosyncratic interpretation of occurrences. To this respect, the first subquestion has shed light on the way in which emotional processes bias and direct conversations, thus clouding the information-sharing process. In fact, external non-task related stimuli might trigger unconscious emotional reactions directing and/or biasing dialogues. Furthermore, human's psychological needs impact motivation schemata that influence conversations. In addition, notwithstanding the adoption of an organizational perspective, it is important to underline that miscommunication is inevitable as individuals rely on idiosyncratic sensemakings of occurrences.

Secondly, I focused on how practicing mindfulness can reduce miscommunication through emotional intelligence and sensemaking narratives. Indeed, researches have shown that this type of meditation facilitates emotional recognition and regulation, thus reducing interferences triggered by non-task-related stimuli. Moreover, the aforementioned abilities improve two other emotional intelligence dimensions: empathy and social skills. These findings lead me to assume that through a better understanding of individuals' emotional reactions it is possible to develop powerful narratives. Specifically, even though sensemaking is an idiosyncratic process of interpretation, organizational reality is co-authored by its participants. To this respect, understanding organizational member's

psychological needs and tapping them through organizationally developed narratives should reduce sensemaking discrepancies, thus facilitating a smoother information-sharing process.

Thirdly, I combined the aforementioned findings to understand whether mindfulness practice can influence socialization processes' communication. Theoretically, organizational representatives (e.g. interviewers, mentors, etc.) should benefit from mindfulness practice as it increases emotional intelligence dimensions. Indeed, through self-awareness and self-regulation they should be able to recognize the sources of their emotions, return faster to neutral states after emotional arousals, and limit mind-wandering thus reducing distractions. This should limit biased information-sharing processes imputable to emotional processes.

Finally, as organizational representatives' empathy and social skills increase, they should be able to better understand sources of miscommunication deriving from divergent understandings, goals, and desires. If this were the case, they should manage to tailor and direct the conversation in a way that facilitates listener's information reception. In addition, they should be able to develop case-based narratives that account for the psychological needs endangered in such specific situation. In this way it should be possible to co-author individuals' sensemakings, thus reducing idiosyncratic interpretation that would create communication misunderstandings.

In summary, this Thesis settled the theoretical basis for the following:

Hypothesis: Mindfulness practice can facilitate effective communication during socialization processes

It will be left for future research to empirically validate or disprove the aforementioned theoretical assumptions and hypothesis.

Limitations and Further Research

Due to the constraints on both time and number of pages, this Thesis presents a number of limitations. First, it relies on assumptions that are reasonably presumed as true, but that would need empirical evidence to be considered valid. Secondly, it simplifies processes with the aim of analyzing variables singularly, but this approach does not take into account the complex interactions between such variables. Moreover, this Thesis' Conclusions identify a Hypothesis that needs to be confirmed through in-company experiments, even though it is the outcome of a triangulation of validated researches.

In addition, in order for this research to be more thorough, it should analyze all the aspects influencing communication, such as the role of persona cognitive biases, the role of specific communication channels, the role of cultural differences, etc. . As an example, it would have been interesting to contact in-company-mindfulness trainers to understand which research they base their work on, their perspectives on my assumptions and hypothesis, and whether they are actually testing the advantages of mindful communication. Moreover, this research would have benefit from the concrete application of plot development in narratives, following Ronald Tobias book "*20 MASTER Plots: and how to build them*" (2011). In addition, it would have been interesting to investigate the relation of narratives with organizational identity as the latter has been associated with important outcomes such as work performance and job retention.

Furthermore, I focus on mindfulness in relation to communication, but several researches proved that this meditation practice is beneficial for various other working life aspects. For instance, results showed that practicing mindfulness reduces overall stress and fosters mental and physical well-being, which in turn impact organizational relationships. Additionally, this Thesis mentions some neurobiological insights disregarding the role of others such as body language and facial recognition, fundamental in visual communication. Finally, it would have been interesting to devote a section to the ethics of mindful communication. Indeed, it can be considered some sort of manipulation as it is aimed at influence individual's sensemakign. It will be left for future research to investigate upon the aforementioned aspects.

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Appendix

Interview Summary:

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Monday, 1st of February, 2016

The neurophysiologist Giacomo Rizzolati discovered mirror neurons at the start of the 1990s. He was performing an experiment where a monkey had a motor neuron of arm movement wired up to a computer. Unrelatedly to the experiment, a research raised his arm to grab a snack. In doing so, the motor neuron of the monkey activated, even though the monkey's arm had not moved. The researcher thought of a faulty reading or a technical equipment malfunctioning. However, upon repeating the same action, the monkey's motor neuron activated again. These neurons were named mirror neurons. Subsequent studies confirmed the presence of such neurons also in human brains.

Specifically, these neurons present in the motor area of the frontal cortex usually activate when we make a hand gesture or a facial expression, as it is normally for motor neurons. However, the experiment previously described unveiled that those same neurons activated also when the subject under study simply watched other's gestures or facial expressions, without actually doing them (hence the name *mirror neurons*). Moreover, they not only activate to actions, but also to emotions and intentions.

Mirror neurons fire to an intention or purpose, not merely to a biomechanical action. Specifically, in an experiment, one group of monkeys had been taught to use normal clamps. The second group had been taught to use escargot clamps, where the clamp closes upon opening the hand (opposite biomechanics with respect to usual clamps). Monkeys' mirror neurons activated when the clamp closed, independently of which clamp they were watching being used. This proves that this system fires in response to purpose and not to action.

Given that teaching monkeys how to use different types of clamps is time-consuming, researchers decided to use the same monkeys again for a second experiment. They introduced a third group of monkeys with no knowledge of either clamps. When this control group was watching other monkeys using clamps, the mirror neuron's system of its participant was not firing. It only started firing after

they had been taught how to use clamps. This experiment proved that mirror neurons rely on an acquired motor asset on which to map the visual stimuli.

The third experiment is a further specification of the previous one. It included a group of professional ballet dancers, a group of professional capoeira dancers (a Brazilian typical art form combining dance and martial arts), and a control group on non-dancers. Their task was to watch videos of other professionals performing either ballet or capoeira moves. In the meantime, a functional magnetic resonance imaging (fMRI) was scanning them to detect changes in their brain's activity.

There are two important things to notice:

- The non-dancer control group had a significantly lower activation of mirror neurons with respect to participants trained in dancing
- The mirror neurons system showed more activity when a dancer saw movements he had been trained to perform

This study shows that the mirror neurons' system is subject to training. Dancers experienced different levels of activation according to the degree of training they have had in particular moves. Specifically, with respect to the control group, dancers had a significantly higher activation of mirror neurons when showed dancing moves. Moreover, the activation was even higher when they watched moves belonging to the specific kind of dance they had been trained in.

To the extent to which your motor system changes, because your skills increase, also your asset of mirror neurons increases. The more things you can do, the better chances you have of mapping the actions of others.

Several researchers claim that the mirror neurons system is involved in empathy. Specifically, two colleagues at the Social Brain Lab have found a positive correlation between the scores of a self-reporting questionnaire on empathy, and the activation of mirror systems for emotions.

Different studies have proved that mirror neurons are related not only to the motor system, but also to the emotional and sensory one. This is one of the reasons why Giacomo Rizzolati proposes a definition other than mirror system. He defines it as mirror mechanisms, because there is not a single system, but several ones dislocated in different areas of the brain. These mirror neurons mechanisms explain at a neurobiological level how we are connected to and influenced by the environment and the people around us.

Figure 1 Maslow's Pyramid