Chapter 17
Cognitive Biases in Decision Making in Post-Bureaucratic Organizations

Marie-Therese Claes
Catholic University Louvain, Belgium

Thibault Jacquemin
Catholic University Louvain, Belgium

ABSTRACT
In today’s post-bureaucratic organization, where decision-making is decentralized, most managers are confronted with highly complex situations where time-constraint and availability of information makes the decision-making process essential. Studies show that a great amount of decisions are not taken after a rational decision-making process but rather rely on instinct, emotion or quickly processed information. After briefly describing the journey of thoughts from Rational Choice Theory to the emergence of Behavioral Economics, this chapter will elaborate on the mechanisms that are at play in decision-making in an attempt to understand the root causes of cognitive biases, using the theory of Kahneman’s (2011) System 1 and System 2. It will discuss the linkage between the complexity of decision-making and post-bureaucratic organization.

INTRODUCTION
One of the important aspects of the post-bureaucratic organization is a decentralized, people-centered and participative structure, with a culture of shared values and participative decision-making, but also risk-taking, innovative and continuous improvement oriented (Kernaghan, 2000). According to Jamali et al. (2006, p.339), “the most prominent features [of post-bureaucratic organizations] that are recurrently mentioned in the literature include empowerment, teams, trust, communication, commitment and flexibility.” Empowerment is often cited as a key feature (Jamali et al., 2006). With it comes the burden of decision-making and responsibility.
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Naturally, we assume that we make decisions that can be explained rationally, such as ‘the decision between two schools was largely based on costs, financial aid and the differences between their co-op programs’. It is however very probable that most decisions are made with a bias, conscious or unconscious. The number of female musicians in a major orchestra only changed after the musicians began to audition behind a shield that restricted the raters from knowing who they were. They were given numbers instead of names. The raters could only evaluate the music, not the musicians (Ross, 2014).

We all make decisions without ever really having learned how to do it. This process seems innate and reliable. However, since the emergence of behavioral economics, numerous books about how irrational we are in our decision-making have been written. Due to their striking examples from the business context, they raised awareness among decision-makers of the pitfalls of their mind in judgment and decision-making, the so called cognitive biases. In distributed decision authority, when more managers at different levels of the organization make decisions on a daily base, raising awareness of possible cognitive biases in decision-making becomes crucial.

In a first section the journey of thought from our rational choice theory until the emergence of behavioral economics will be described. It is essential to understand the evolution of the thinking process in order to understand the importance of cognitive biases today. Therefore, this chapter starts with a historical overview of the history that made neo-classical economists use the rational choice theory, the emergence of the behavioral economics starting with the findings of Herbert Simon (1955) on bounded rationality, and today’s divergences between the neo-classical theories (mainstream economics) and behavioral economics. Next, today’s concept of decision-making will be described. Diving deeper into the field of behavioral economics, a categorization in three different levels of the aspects impacting our decision-making will be presented: the external level or societal level (group think), the internal level (neuro-economics), and the individual level (cognitive biases). In order to understand the root causes of cognitive biases, the mechanisms at play will be discussed and the theory of Kahneman (2011) will be reviewed. Finally, the chapter will present recommendations and further research directions.

BACKGROUND

The evolution of the ideas regarding the human decision-maker reveals why researchers developed behavioral economics, and helps to understand the rise of the importance of cognitive biases. The ideas of the 17th century are far-gone but they are essential to understand the evolution of the field of decision-making.

In the 17th century, Descartes developed the Cartesian model of rationality which describes how human reasoning is and should be logical. He assumed that our reasoning is conscious and deliberate. Influenced by Descartes, Leibniz imagined a mathematical model for decision-making in 1677 that would lead all reasonable persons using it to a same conclusion. His idea was to create characteristic numbers for all ideas. Disputes would be reduced to computations involving those numbers. Abandoning all subjectivity in decision-making, his model would eradicate all never-ending disputes.

In the late 18th century, Adam Smith’s work was a milestone for what will become our neoclassical economic models. In his book The Wealth of the Nations (1776) Smith outlines his theories on economics. Economics in his opinion is the science of wealth. Smith wanted to develop a theory using a scientific approach similar to Newton and his mathematical laws for explaining physics. In order to develop his theories he made assumptions, with rationality of the human economic agent as one of the most important assumptions. After him, most economists would develop economics as a systematic science.