Chapter 12
Applying Neuroscience to Talent Management:
The Neuro Talent Management

Dinçer Atlı
https://orcid.org/0000-0002-8752-6886
Uskudar University, Turkey

ABSTRACT

This chapter discusses the opportunities and challenges involved in combining the two fields of neuroscience and talent management (often abbreviated as TM), starting from the assumption that the need to merge them is justified by their complementarities, rather than by the level of analysis they focus on. The authors discuss potential benefits and drawbacks for management research using methods obtained from cognitive neuroscience. Firstly, they discuss distinct advantages in applying techniques allowing researchers to track processes that are essential to the talent management field, warning that neuroscientific approaches and technologies are not commonly used. Secondly, they define main problems, which describe the limits within which management scientists can usefully apply these approaches. Thirdly, they suggest a new perspective that incorporates the complementary capacities of managers and neuroscientists to generate useful information and perspective for both disciplines.

INTRODUCTION

Neuroscience can be defined as an investigation of the functioning of the nervous system and the brain. In other words, neuroscience is scientific research into functions of the nervous system (brain, spinal cord, and peripheral nervous system) (Gage, 2015). During the 20th century in the neurosciences, the individual was mostly treated as the fundamental unit of analysis, and the brain was thought to be a solitary information-processing organ. This is a starting point that is entirely understandable. In this period, the brain, the organ of the mind, is housed deep within the skull protected and isolated from others, as are the neural, genetic, and hormonal processes of interest to most biological scholars (Cacioppo, Berntson, & Decety, 2010).

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Over the last few decades, technological and conceptual advances in neuroscience have begun to expose the internal functioning of the human brain (Boulder, Becker, Cropanzano, & Sanfey, 2011). In these years, the neurosciences have seen a dramatic increase in popularity across different social science disciplines, influencing social psychology, economics, organizational behavior, and marketing in particular (Holmes, 2014). Innumerous conferences, symposiums and publications of all sorts have been produced regarding the relationship between the brain and the human subject (Kraus, Panese, & Pidoux, 2013).

Enhancements in the neural processes accelerated by quantum leaps in imaging technology have enabled scientists to provide additional insight into the neurological dynamics of human interaction. From this point of view, theoretical foundations underlying organizational phenomena advanced through the incorporation of themes, methods, and findings emerging from neuroscience (McDonald & Tang, 2014).

Today, we are living in an increasingly 'neurocentric' world, a world in which knowledge and insights regarding our brain and its processes are expanding fast and have an increasing impact (University of Amsterdam, 2016).

Management scholars have realized the significance of neuroscience and human biology. Although empirical studies are sometimes limited, existing applications tend to fall into three categories: evolutionary psychology, behavioral genetics, and neurological and physiological changes. Every one of those concepts has presented scholars with a unique insight into the interaction between social neurobiology and work behavior. Organizational scientists recognize the importance of the social environment. Phenomena such as working climates and other aspects of the social environment have well-documented effects on employee attitudes and behaviors (Boulder et al., 2011).

In this regard starting from the late 1990s, for companies all over the world, talent management has been defined in broad terms as an organization's endeavors to attract, select, develop and retain key talented employees (Scullion, Collings, & Caligiuri, 2010). Thus, talent attraction, development, deployment, and retention became a crucial task in global business (Schuler, Jackson, & Tarique, 2011).

Neuroscience today provides powerful insight into cognitive and behavioral processes, the relationship between mind and body, and transforms the way we think (Vorhauser-Smith, 2010). Moreover, neuroscience offers the potential to advance our understanding of talent attraction, management development, and talent retention (McDonald & Tang, 2014). Applying Neuroscience to the practice of talent management can help companies do their human resources or talent management practices more effectively (Hills, 2012).

In this section, research questions that could be asked include; How can insights from neuroscience shape future theory and models in talent management? How should neuroscience methods be integrated into the research methodology of talent management? Can neuroscience and talent management help to evolve the discipline of neuro talent management with precision and reliability? Thus, how do neuroscientific tools help address practical talent management issues are a paramount question.

OVERVIEW OF NEUROSCIENCES

The term neurology is a specialized area of medicine that concerns disorders and diseases of the nervous system date back from 1681, and many neuro disciplines were coined in the 19th century, as did neuroanatomy, neurophysiology, neurosurgery, and others. However, the widespread interest in neurosciences and the emergence of new neuro-disciplines is comparatively new (University of Amsterdam, 2016).