Chapter 19
Marketing Meets Neuroscience: Useful Insights for Gender Subgroups During the Observation of TV Ads

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ABSTRACT

In this chapter, findings of an experiment aimed to investigate cognitive changes of cerebral activity during the observation of TV commercials will be presented. In particular, it has been recorded Electroencephalographic data (EEG) from a group of 24 healthy subjects during the observation of a series of TV advertisements. The group was divided by gender (male, female). Comparisons of cerebral index previously defined have been performed to highlight gender differences between scenes of interest of a specific TV commercials and the influence of the speaker's gender on the subgroups perception. Findings show how EEG methodologies could be used to obtain information not obtainable otherwise with verbal interviews. These cerebral index could help to analyze the perception of TV advertisements according to the target consumer's gender.

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INTRODUCTION

Goal of any advertising campaign is to convey a specific message and reach a specific audience. Optimize advertising investments getting a good effectiveness of their communication is one of the main objectives of a company. It is known how the big companies invest a significant portion of their budget to promote their products or to improve their image and one of the most used channels is the television, the most effective communication medium to reach the greatest number possible of potential customers.

Recently, a rapidly growing approach within consumer research has developed under the label of "consumer neuroscience." Its goal is to use insights and methods from neuroscience to enhance the understanding of consumer behavior. The application of neuroscience to consumer psychology has gained popularity over the past decade in academic research and business practice. In fact, the goal of consumer neuroscience is to adapt methods and theories from neuroscience combined with behavioral theories to develop a neuropsychologically sound theory to understand the consumer behavior.

The birth of the field of consumer neuroscience has generated wide-ranging, ongoing debates of whether this hybrid field benefits its parent disciplines (consumer psychology and neuroscience) and, within them, what forms these benefits might take (Ariely & Berns, 2010; Kenning & Plassmann, 2005; Lee et al., 2007; Plassmann et al., 2007).

In these last years, findings from the consumer neuroscience experiments deconstruct the picture of perfectly rational humans, which are deliberating their choices by weighting costs and benefits until a deliberative equilibrium is reached. Although humans are definitely capable of conscious deliberation, many, if not most economically relevant decision processes are characterized by certain other features: first, they rely on automatic, fast and effective cognitive processes, which are not under direct volitional control (Bargh & Chartrand, 1999). Second, they are under the influence of unrecognized and finely tuned affective mechanisms, which often play a decisive role in action (Damasio et al., 1996; Davidson et al., 1999; Panksepp et al., 2004). Third, many of these processes have been shaped by evolution in order to serve social purposes (Adolphs, 2003; Cacioppo et al., 2002).

The term "neuromarketing" refers to practitioner and commercial interest in neurophysiological tools, such as eye tracking, skin conductance, electroencephalography (EEG), and functional magnetic resonance imaging (fMRI), to conduct company-specific market research. Neuromarketing has received considerable attention in the corporate world, and the growth of neuromarketing companies over the last decade has been impressive (Plassmann, 2012). More properly, neuromarketing can be defined as the field of study that applies the methodologies of the neuroscience to analyze and understand the human behavior related to market and economic exchanges (Lee et al., 2007). Hence, the contribution of neuroscientific methods becomes significant for the knowledge of the human behavior in the marketing scope. Moreover, another interesting issue is overcoming the dependence from the verbal answering nowadays used on testing subjects in traditional marketing researches where insights and indicators depend on the good-faith and accuracy of the experimental subject reporting his own sensations and opinion to the experimenter. Instead, the use of the brain imaging technique can distinguish the subject's cognitive and emotional experiences (verbally expressed during the interviews) from the activations of cerebral areas related to different, and unconscious, mental states. Interesting experimental evidences suggest that the use of the brain imaging, in a near future, could be placed side by side to classical tests today largely used in the marketing sciences (Vecchiato et al., 2013).