Chapter 5
Looking at the Brain:
How Consumers Process Advertising

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ABSTRACT

The pursuit of more persuasive advertising has recently attracted the interest of the scientific community. Yet most of this research resorts to self-report studies that are inaccurate when measuring sensitive information and unconscious reactions. There is therefore a growing interest in applying more objective systems such as tools from the field of neuroscience. This chapter aims to outline the brain mechanisms that underlie consumer processing of words and messages in advertising. Since brain activation can reflect the impact of a specific message on consumer attention and persuasion, the study summarizes the neural effects—as well as the behavioral consequences—of the main types of messages explored in the recent consumer neuroscience research, namely gain/loss-framed, political, deceptive, subliminal and brand-related messages. Based on the results, this study attempts to objectively determine which advertising elements are processed as more persuasive, and therefore which are more useful in the design of successful advertising campaigns.

INTRODUCTION

Advertising plays an important role in the business world as it influences attention and recall, as well as consumer attitude toward product purchase and intention of purchase (Connell, Brucks, & Nielsen, 2014). Moreover, commercials are a key tool of increasing brand awareness and product sales (Taylor, 2013). Therefore, if designed properly, advertising can have a persuasive effect on the purchase and direct consumption of specific products.

Advertising effectiveness research has assessed the impact of several media features on media effects such as attitude, intention, recall and choice (color: O'Connor, 2015; packaging: Van der Laan, De Ridder, Viergever, & Smeets, 2012; commercial content and format: Martínez-Fiestas, Viedma del Jesus, Sánchez-Fernández, & Montoro-Rios, 2015). Most of this research is based on findings gleaned from questionnaires, surveys or focus groups, namely self-report tools. However, do these traditional techniques measure consumer response in real time, second by second? Moreover, can an item of a scale be misunderstood because of its translation to a different language? And are these self-reports recommended for g sensitive data such as sexual orientation or net income? What is more, are respondents conscious and rational as to their choices or do they come to decisions unconsciously? When trying to respond to these questions, it is clear that traditional communication research has left aside key factors in the development of attitudes or intentions toward advertisements and, therefore, must be complemented with more accurate and objective techniques.

To overcome the limitations of declarative techniques in measuring advertising effectiveness, a great amount of communication research has recently resorted to neurological tools such as functional magnetic resonance imaging (fMRI) and electroencephalography (EEG) to uncover the neural bases of cognitive, emotional, and social processes, as well as to offer new insights into the unconscious processing of advertising information. Specifically, a number of papers have recently drawn upon cognitive neuroscience literature in the framework of advertising persuasiveness research. These studies identify a set of features that communication specialists can exploit to determine the effectiveness of stimuli or capture hidden human mental processes triggered by messages.

Aware of the benefits offered by neurological tools, advertising researchers have explored the neural effects of the diverse typologies of messages such as gain/loss-framed, deceptive, subliminal, or brand-related messages. Hence, with the intention of clarifying the main findings of recent neuroscience research on advertising persuasiveness, this chapter aims to: 1) outline the conclusions of previous consumer neuroscience analyses exploring the unconscious mechanisms through which consumers process advertising language ; 2) explain the managerial implications of the neurological findings by indicating the elements of advertising which are processed as more persuasive, and therefore more useful in the design of successful promotional strategies, and; 3) reflect on the ethical implications of the use of neuroscience in elucidating advertising persuasion.

BACKGROUND

Advertising Persuasion and Self-Report Measures

A series of different models of persuasive messages in the field of communication research have, over time, been analyzed from different perspectives. According to the Black Box Model (Tellis, 1988), a message is persuasive if it increases the number of visits or diffusion. This model establishes a correspondence between advertising and behavior. Cognitive models consider that an advertisement is persuasive if it produces positive or negative cognitive responses (e.g., attention, recall; Belch, 1981). These approaches consider advertising as an additional source of information and advocate that consumer decisions are purely rational. Only later have researchers recognized that emotions and feelings generated by the message are relevant to the consumer (Affective models: Bagozzi, Gopinath, & Nyer, 1999; Pechmann & Stewart, 1989). The most recent research in this field (Lee & Thorson, 2009; McKay-

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