

## **Do we choose what we look at or it's our brain that chooses?**

A cognitive approach to the relation between visual attention and perception based on advertising stimuli

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This study questions whether, when talking about graphical stimuli (and in particular, advertisements), attention is above the surface of consciousness that leads to a voluntary perception of the existing stimuli; or if attention is an involuntary process so that we perceive a selection of the stimuli our brain has previously chosen. Previous research of Cognitive Psychology based on advertising attention and perception documents that our cognitive response directly depends on the level of attention focused on the existing stimuli. To understand this question, we need to determine the parameters governing our level of attention.

Reviewing recent work related to attention and perception of graphic advertising stimuli, we noted that the field has been explored from two different points of view. On the one hand, some researchers analyze attention by taking into account the influence of exogenous variables, in this case, the visual salience of the advertising stimuli in terms of size of the ad (Homer, 1995; Finn, 1988; Grønhaug, Kvitastein and Grønmo, 1991; Zhang, Wedel and Pieters, 2009), size of specific elements (Finn, 1988; Pieters and Wedel, 2004), distances between elements, colors and their symbolisms (Añaños et. al, 2009; Walters, Apter and Svebak, 1982; Finn, 1988; Grønhaug et al., 1991), context in which ads are published (Boerman, 2010; Moorman, Neijens and Smit, 2002), object complexity and representation resolution (Xu and Chunand, 2009), shape of elements and images included in ads (Barri, 2006). All studies have reported influences of these exogenous variables on human attention and cognitive processes.

On the other hand, there is a sum of authors who approached this investigations taking into account endogenous variables, those spontaneously generated from an individual's internal state. It has been disclosed that a great number of our motivations and behaviors are controlled below the conscious awareness (Matukin, 2010), deeply influencing our perceptions. In this line of research, it's been discovered that attention prioritizes stimulus processing on the basis of motivational relevance, and expectations constrain visual interpretation on the basis on prior likelihood (Summerfield and Egnér, 2009).

Previous studies provide important answers to the question of what parameters determine our level of attention, although there are some unexplained items that would lead to relevant findings about the relation between attention and perception to advertising stimuli. In order to achieve this knowledge we propose to investigate the relation between exogenous and endogenous variables, and to what extent this variables influence the attention to advertising stimuli.

Until now, this question had been approached by some researchers such as Wells (2000), who mentioned some relation between exogenous factors (color and size) and endogenous factors (interest) in recall, recognition and memorability, and consequently in attention and perception. Some years later, Pieters and Wedel (2007) studied this item and demonstrated that different patterns of visual attention are promoted when different processing goals are demanded and that informativeness of the ads and the objects contained therein are also essential clues on attention patterns. Moreover, Grimes (2006) proposes that even mere exposure and low involvement may influence perception of ads, resulting in spontaneous stimulation of affective responses, without the need for high levels of attention created by the manipulation of exogenous variables of ads. Ruiz and Lupiáñez (2002) propose the concept of “attentional capture”, defined as the conditions that give involuntary attentional priority to irrelevant stimuli. From an extensive revision of the topic, authors show that “attentional capture” is due to exogenous factors, although it is also susceptible to endogenous variables.

Taking these results into account, our question deflects to next one: What happens with stimuli (ads) that strongly appeals to endogenous variables (previous experience and knowledge, goals in mind, motivation, expectations, fears ...) and, at the same time, have exogenous factors that attract or repeal our attention? In other words, how these two influences (endogenous and exogenous variables) overlap, differ and interact in our attention and perception of visual ads? In further investigations we plan to study this relation on basis of highly psychological involving advertising topics (blood donations, safety driving, drug or AIDS prevention, or action against poverty). We will approach this topic from experimentation and theoretical revision of Cognitive Psychology studies about attention and cognitive processes.

*Bellaterra, the 24<sup>th</sup> of March, 2011*