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Emotionality and Semantic Onsets: Exploring Orienting Attention Responses in Advertising

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ABSTRACT

Prior research on attention shifts to advertisements has focused primarily on demonstrating how perceptual features can shift attention to advertisements. In this article, the authors demonstrate that certain semantic characteristics of non-focal ad elements may similarly attract attention when consumers' are focused on a primary task elsewhere in the visual field. In three experiments, the authors investigate how orienting attention responses to highly emotional ad elements influence ad and brand awareness in cluttered environments. Specifically, they demonstrate that preattentive processing of the semantic information in non-focal ad headlines can elicit orienting attention responses that result in predictable increases in ad and brand awareness.

Consumers often navigate environments that contain more information than they can fully process (e.g., Pieters and Wedel 2007). Since people manage this information overload by selectively attending to specific stimuli, understanding this process of selective attention is critical for successful advertising. To the extent selective attention can be controlled, consumers can be encouraged to attend to specific marketing communications. Over a century of research on print advertising has led to generally accepted recommendations for directing consumers' attention. Advertisements with physical properties (e.g., brightness, color, size, and contrast) that interrupt the current visual display capture attention (Hanssens and Weitz 1980; Smit, Neijens, and Stuurman 2006). Such perceptual interruptions allow distinctive features from within an Advertisement to pop out from their surroundings, thus directing attention to the feature and the advertisement in which it is embedded (Treisman 1986; Treisman and Gormican 1988).

In contrast to prior work showing that these interruptions, known as abrupt visual onsets, can capture attention, this article provides evidence that high semantic onsets can similarly capture attention. A high semantic onset, defined as a strong emotional reaction to a stimulus, allows a stimulus to be detected during preattentive processing of the environment. In three experiments, we show that when an advertisement is outside the area currently receiving focused attention, the emotional meaning of a word in an advertising headline may be processed preattentively (i.e., before receiving focused attention) and elicit attention to the advertisement despite the consumer's focus on another task. Specifically, we demonstrate that when focusing attention on a primary task, such as reading an article, people will preattentively identify an emotional word that appears in the headline (e.g., "Feeling *Selfish*?" or "With a *Kiss*") of a non-focal advertisement. We argue that because of the important nature of emotional stimuli, when such emotional information is registered on an unconscious level, it initiates a shift in attention

away from the currently attended article and onto the non-focal advertisement featuring the emotional word headline.

This paper proceeds as follows: We first discuss two literature streams on which we build our predictions: semantic analysis of non-focal stimuli and orienting attention responses. We then rely on these streams to generate hypotheses about the impact of emotional stimuli embedded in the headlines of non-focal newspaper advertisements and test these hypotheses across three experiments.

THEORETICAL OVERVIEW

Preattentive Processing of Non-focal, Semantic Information

Central to this investigation is the notion that attention may be drawn to a non-focal stimulus in response to the preattentive detection of important stimuli. For non-focally-placed stimuli to interrupt a focal primary task in this manner, some semantic information must be extracted preattentively from these stimuli to determine importance. However, prior literature is divided as to whether semantic information can be extracted preattentively when words are placed outside the area of focal attention.

Evidence in support of semantic analysis of non-focal verbal information comes from two streams of priming research: positive and negative priming. Several positive priming studies demonstrate that unattended, parafoveally placed (between 1.5 and 5 degrees from the focal point) words can facilitate responses to a focal target word. For example, Di Pace, Longoni, and Zoccolotti (1991) and Fuentes and colleagues (1994) find that unattended parafoveal words presented below threshold speeds aided subsequent responses to semantically related target words. Fuentes and colleagues show that this facilitative effect of unattended, parafoveally placed words persisted even when participants were required to complete a secondary task when

responding to the target word, thus diminishing attention resources and ruling out the contribution of attentional resources to their findings.

Social cognition researchers have also demonstrated that parafoveally placed stimulus words may, even when presented below the threshold for attentive processing, work to activate information categories (e.g., Bargh and Pietromonaco 1982) and behavioral goals (Chartrand and Bargh 1996; Strahan, Spencer, and Zanna 2002). Because word strings placed outside the focal area are expected to be processed at the level of the individual word (Greenwald 1992), we expect that single words embedded in ad headlines will undergo preattentive analysis at the level of the priming examples just provided.

Additional evidence for semantic analysis and categorization of unattended, parafoveally placed words comes from negative priming research (e.g., Abad, Noguera, and Ortells 2003; Ortells et al. 2001). For example, Ortells and colleagues (2001) demonstrate that primes presented in a parafoveal fashion and in to-be-ignored locations interfered with responses to categorically related target words but not to categorically unrelated words.

Although evidence exists to suggest that some semantic information can be elicited from non-focally-placed stimuli, other studies have failed to find such support. For example, using eye-tracking equipment and highly arousing emotional words, Hyönä and Häikiö (2005) find that eye-fixation patterns around the target word revealed no evidence of parafoveal semantic processing and pupil dilation patterns did not indicate that the emotional word was processed in a parafoveal way. Importantly, however, because of the reduced signal strength given to stimuli placed in the peripheral field of vision, the physical size of the presented emotional words in Hyönä and Häikiö research was likely too small (12 point font) to enable them to be processed, even on a preattentive level (Anstis 1974). Furthermore, Rayner and colleagues (2003) present