Attentional Processes in Consumer Evaluations: A Neuromarketing Study

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1 Introduction

Consumers are exposed daily to a vast array of competing products, prompting companies to seek new ways to capture attention and differentiate their offerings (Gourville & Soman, 2005). Over time, marketers have developed several strategies to influence consumer behavior. One of these is cross-merchandising, which involves positioning complementary products close to each other to encourage joint purchases (Sarantopoulos et al., 2019). Although such strategies are widely used in practice, the mechanisms underlying their effectiveness remain poorly understood. For this reason, both researchers and marketers have increasingly turned to the study of implicit neural processes underlying consumer behavior, in order to better understand and optimize marketing strategies beyond what can be captured through explicit self-reports.

This study investigates whether early neural processes, in particular attentional allocation, play a role in consumer evaluations. First, it examines whether cross-merchandising effectiveness is reflected in attentional differences between single and complementary products. Second, it explores whether this neural measure predicts key consumer variables, namely pleasantness, consumption frequency, and willingness to pay (WTP).

In neuromarketing research, attentional allocation is commonly assessed using EEG, particularly via the P300 component (∼300 ms post-stimulus; Olichney et al., 2022).

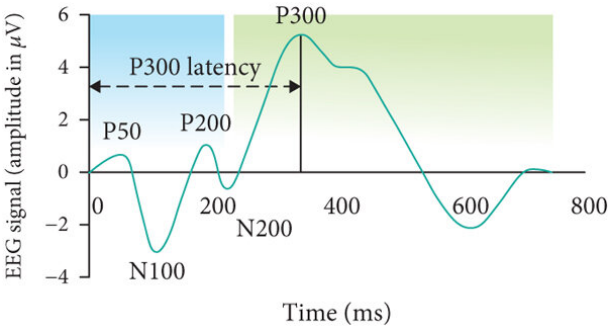

Fig. 1: P300 (Olichney et al., 2022)

2 Methods

Sixty participants (49 women, 11 men; aged 20–35) were exposed to five sets of food images, each consisting of three stimuli: two complementary single products and their combination (for example, one set included Nutella, bread, and their combined presentation), while EEG was recorded to extract P300 amplitudes for each image. After the recording session, participants completed a questionnaire in which the same images were presented to assess the three consumer variables (measured using 5-point Likert scales, except for WTP, which was assessed by asking participants how much they would be willing to pay for each product).

Within each set, P300 responses were compared across image types to examine differences in attentional allocation between single products and combinations. In addition, P300 amplitudes were correlated with questionnaire responses to examine potential associations.

3 Results

Results showed no significant differences in P300 amplitudes between combinations and single products, nor significant correlations between P300 responses and any of the consumer variables.

4 Discussion

These findings suggest that early attentional processes are not responsible for the effectiveness of the cross-merchandising strategy and do not predict consumer preferences, consumption habits, or pricing decisions. Rather, these evaluations are likely driven by higher-order cognitive mechanisms occurring at later stages, warranting further investigation.

By integrating neural and behavioral measures, this study contributes to the field of neuromarketing by highlighting the limits of early neural indicators, such as the P300, in predicting higher-order consumer behavior, and by emphasizing the distinction between early attentional mechanisms and subsequent evaluative processes in consumer contexts.

References

Gourville, J. T., Soman, D. (2005). Overchoice and assortment type: When and why variety backfires. Marketing science, 24(3), 382-395.

Olichney, J., Xia, J., Church, K. J., Moebius, H. J. (2022). Predictive power of cognitive biomarkers in neurodegenerative disease drug development: utility of the P300 event-related potential. Neural Plasticity, 2022(1), 2104880.

Sarantopoulos, P., Theotokis, A., Pramatari, K., Roggeveen, A. L. (2019). The impact of a complement-based assortment organization on purchases. Journal of Marketing Research.