

## Executive Summary

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### **Measures of Implicit Cognition for Marketing Research**

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Academics and managers need to know that key mental processes occur below the conscious awareness threshold. While unconscious processes largely influence consumer decision-making processes, self-report measures do not reveal these processes adequately. Consequently, marketers need to utilise psychologists' indirect measures that infer unconscious mental content from reaction-time tasks. Three well-known tools are explicated in the present article: the Emotional Stroop Task, the Implicit Association Test (IAT), and the Approach-Avoidance Task (AAT). Each test taps into a different facet of implicit cognition. This research describes these test instruments' experimental setups and alternative procedures to guide academics and practitioners when they apply implicit measures. The Ask Your Brain (AYB) survey software is presented as an online research platform for executing all three test types and provides a cost-efficient alternative to lab experiments.

In this paper's conceptual part, we outline the three test instruments' research paradigms and describe their past applications in the marketing domain. We describe each implicit measurement instrument's conceptual background, summarize its standard test procedures, and briefly discuss relevant methodological criticisms. We describe how the obtained measurement data should be prepared, condensed, and analysed. Subsequently, we present an empirical case to illustrate the concrete application of the different measurement instruments, utilising empirical data gained from a consumer protection study of 104 South African students. These young adults were confronted with alcohol stimuli in the Emotional Stroop Task, IAT, and AAT. They subsequently performed a discrete choice task related to alcoholic drinks and soft drinks. Based on their drink choices, we explore the extent to which the implicit measures relate to their choice behaviour.

The Emotional Stroop Task is based on the premise that emotional stimuli attract more visual attention than neutral stimuli. This distraction causes a delay in response when participants are asked to name a displayed word's colour as fast as possible. Although our study could not directly support this premise, alcohol-inclined participants generally reacted more slowly to alcohol and neutral stimuli. The IAT confronts participants with combinations of a bipolar target category and a bipolar attribute category. Category combinations corresponding to the respondent's intuition (compatible) facilitate task performance and result in shorter reaction times. In our study, those individuals who chose significantly more drinks containing alcohol reacted faster to combinations of "alcohol" and "active" (rather than "alcohol" and "miserable"). This finding shows that the IAT can indeed predict choice behaviour. Finally, the AAT postulates that individuals move faster to a desired object and away from an undesired object. Both the reaction times and the error rates indicated this pattern. Individuals were slower and produced more errors during incongruent tasks (push positive items; pull negative items) than congruent tasks (pull liked items, push disliked items). This finding shows that implicit measures can identify consumers' approach and avoidance tendencies.

This paper provides methodological insights into three prominent implicit cognition measures, as well as practical suggestions for practitioners and academics. We exemplify each method's usage for research questions in marketing and consumer research. We particularly suggest using the Emotional Stroop Task for studies on attention-based processes, for example, advertisement exposure. The IAT is recommended for assessing richer cognitive processes, such as product or brand images, and the AAT when studying visceral and biological influences on impulsive consumption. Overall, we encourage marketing researchers to add implicit measures to their toolbox and to explore their contributions further for a better understanding of consumer decision making.