

Can humans consciously control the formation of their "gut reactions"?

Why can brand names evoke immediate emotional responses which influence purchasing decisions, yet even the most earnest public safety campaign fails to change behaviour? Dr Gabrielle Weidemann, and Professor Catherine Stevens from the MARCS Institute with Professor Christopher Mitchell from Plymouth University UK, will examine the mechanism behind the acquisition of these reactions: automatic affective responses. This research has been funded by the Australian Research Council Discovery Program.

'Marketing, brand initiatives, government campaigns, psychological interventions, and health programs are strongly influenced by automatic affective responses to certain stimuli,' Dr Weidemann explains. 'Linking a chocolate brand name with a feeling of pleasure, or a politician's face with disgust will affect a person's behaviour – but to what extent are these links made unconsciously with simple conditioning processes, and is there any room for conscious deliberation to influence them?'

This project will examine the impact of complex cognitive processes on the formation of "gut reactions" to determine how much attention, conscious interpretation and encoding is needed to form strong associations, giving new insight into treating health and social dysfunctions. Current attempts to alter harmful behaviours in the general public rely on information and reason based campaigns – however, these do not take into account individuals' automatic affective responses, and have been shown to be of limited efficacy. If the precise nature of these responses can be mapped, then wide variety of applied sciences will benefit.



The research team will conduct experiments to test the power of both simple conditioning processes and complex cognitive processes to induce automatic affective responses in university student participants. Results will be indicated in Facial EMG measures and speeded reaction time tasks.

If automatic affective responses can be more accurately understood, then a wide range of behavioural interventions could be made more effective. These include weight loss and diet programs, addiction recovery, and even improving relations between conflicting cultural or racial groups.

Project Title: I like you and I just can't help it: Explaining automatic affective responses **Funding has been set at:** \$293,000

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