

Ambient Persuasion Needs Goal-striving: The Effect of Goal Activation on the Persuasive Power of Subliminal Feedback

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Introduction

Ambient persuasive technology is technology that is integrated in the user's environment and that can influence behavior or attitudes outside of people's conscious attention (Davis, 2008). A crucial advantage of ambient persuasive technology over more direct ways of influencing people's behavior is that it can unobtrusively be integrated in the environment. One method of doing so is subliminal priming: Presenting a stimulus for less than 50 milliseconds, so they are unable to consciously perceive it (Bar & Biederman, 1998). Earlier research has shown that subliminal feedback on energy consumption leads to more optimal choices in an energy-related choice task compared with no feedback (Ham, Midden & Beute, 2009). Would subliminal feedback always be effective in influencing people's choices, or do people need to be motivated to reach a specific goal for it to work?

Method

In the current research, we investigate if persuasion by subliminal feedback comprises a goal-striving related process in which people strive for a goal and use the subliminal information to reach that goal. In an experimental study, half of the participants were primed with the goal to perform well, and the other half was not primed with this goal. Next, half of the participants received subliminal feedback in a learning task, whereas the other half received no feedback.

Results

Results indicated that participants primed with a performance goal made more correct choices in the task when given the subliminal feedback compared with given no feedback (see Fig. 1). Participants who were not primed with a goal were not influenced by

this feedback. This finding indicates the need for a behavior-relevant goal to make subliminal information effective, which in turn has important implications for research and design of ambient persuasive technology.

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References

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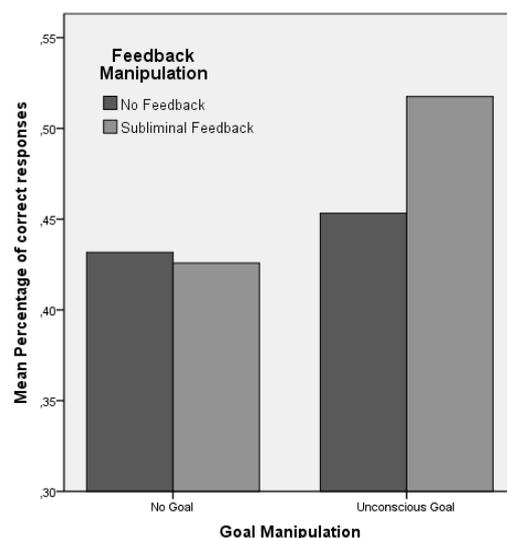


Fig. 1: Interaction between feedback and goal manipulations