

### **Slow speedy shoppers with bespoke flooring**

New research by academics in France, Belgium and the Netherlands explores how retailers could have the power to modulate our walking speed in shops. It demonstrates, for example, that changing the distances between lines on the floor can tap into subconscious desires to reach the end of shopping aisles: the closer the end appears, the faster we walk towards the goal.

The study by Nico Heuvinck (IESEG School of Management in France), Bram van den Bergh (Rotterdam School of Management, Erasmus University), Gaby A. C. Schellekens, and Iris Vermeir (Ghent University,) is published as a paper 'Altering speed of locomotion' in the Journal of Consumer Research (October 2016).

Retailers employ different techniques to moderate in-store customer traffic. The most common of these is music. Playing different tempo music can alter shopper walking speed, but what if they wanted consumers to walk at different speeds in different aisles of the shop? Professor Nico Heuvinck explains, "As a retailer, you might want to slow shoppers down in aisles containing high profit margin products, so they have more time to see the products and in-store advertising". In other areas, like the store entrance, they will want to promote swift movement of customers to avoid congestion, crowding and consumer irritation.

Heuvinck and his coauthors made over 4000 observations of shoppers, both in-store and in a lab. They altered markers on the floor to alter the perception of aisle length and thereby modulate human speeds when walking down shopping aisles (altering the distance between markers alters an individual's perception of the distance to the end goal). The researchers relate their findings to goal gradient theory: when an individual is closer to their goal (the end of the aisle), they will walk faster to reach it. Meanwhile, participant surveys have also revealed that slower walking makes shoppers more observant.

"The literature shows us that humans are influenced by the goal gradient effect," he explains. "Coffee shop loyalty programs have us collecting stamps with the goal of getting a free coffee once we have ten stamps. Initially, there is no hurry to get the stamps. But, when you get closer to the tenth stamp, it has been shown that consumers purchasing speed increases." The team, therefore, wanted to see if humans also respond to physical markers that would influence their subconscious desire to reach a goal: the end of a shopping aisle.

By making thousands of observations of shoppers in both the lab and in real retail settings, they were able to map their walking speeds. They altered distance between lines of tape on the floor of an aisle and conducted surveys related to object recognition. They found that when lines were closer together, consumer perception was that the end of the aisle was further away, and they walked slower. This is when their recognition was also best. "The results are very robust and we saw significant influence on walking speed time and again," Professor Heuvinck adds.

Influencing walking speed in a retail environment could lead to changes in sales patterns. "Retailers are interested in increasing sales and the work needs to be developed to provide a link between

walking speed influenced by floor pattern, and retail sales,” concludes Professor Heuvinck. He also notes, however, that shoppers are influenced by a number of external factors when they come to make a purchase, and proving this correlation could be difficult.

“Retailers can use our findings to moderate walking speeds in different areas of a retail space,” Heuvinck notes. For example, they could use different sized tiles or parquet, or make intermediate flooring sections to break up floor spaces. Although the research focused on flooring, he believes the effect will be seen if walking paths are divided by partitioning the wall or ceiling, by altering shelf length or distance between lighting fixtures. “Partitioning has the potential to influence shopping patterns and drive up sales,” he adds.

He also explains that this work is not just limited to retail: “There are potential applications for speed influencing floor patterns in any space where you want to moderate the flow of people. These include busy public spaces such as museums, train stations and airports.”

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