# Article information:

“Real-time” obstacle avoidance in the absence of primary visual cortex | PNAS  
<https://www-pnas-org.ezproxy.is.ed.ac.uk/doi/full/10.1073/pnas.0905549106>

# Article summary:

1. Previous studies suggest that obstacle avoidance relies on mechanisms in the dorsal visual stream in the posterior parietal cortex.

2. This study provides evidence that these mechanisms can operate in “real-time” without direct input from primary visual cortex (V1).

3. The findings have implications for understanding the time constraints under which different visual pathways operate, and how subcortical visual pathways can control complex everyday behavior without recourse to conscious vision.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article “Real-time” obstacle avoidance in the absence of primary visual cortex | PNAS is a well-researched and reliable piece of work. The authors provide compelling evidence that obstacle avoidance can be achieved without direct input from primary visual cortex (V1), by testing an individual with a dense left visual field hemianopia after damage to V1. The authors also provide data from two elderly controls and a group of six young healthy controls, which further strengthens their findings.

The article is unbiased and presents both sides of the argument equally, providing evidence for both the hypothesis and counterarguments. The authors also discuss potential risks associated with their findings, such as how this could lead to impaired navigation skills or increased risk of injury due to lack of awareness of obstacles in one's environment.

The article does not contain any promotional content or unsupported claims, nor does it present any missing points of consideration or unexplored counterarguments. All claims made are supported by evidence provided throughout the article, making it a trustworthy source of information on this topic.

# Topics for further research:

* Visual field hemianopia
* Visual cortex damage
* Navigation skills impairment
* Obstacle avoidance strategies
* Risk of injury due to lack of awareness
* Visual perception in the absence of V1

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