# Article information:

Avoiding unseen obstacles: Subcortical vision is not sufficient to maintain normal obstacle avoidance behaviour during reaching - ScienceDirect  
<https://www-sciencedirect-com.ezproxy.is.ed.ac.uk/science/article/pii/S001094521630257X>

# Article summary:

1. Previous research has suggested that obstacle avoidance behaviour is a prime example of a pure dorsal stream function, and can occur without conscious awareness.

2. This study tested whether obstacle avoidance behaviour can be guided by subcortical vision alone, in a group of patients with highly circumscribed lesions in the occipital lobe (including V1).

3. The results showed that all patients successfully avoided obstacles placed in their intact visual field, but none of them showed reliable avoidance behaviour for obstacles placed in their blind visual field.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Avoiding unseen obstacles: Subcortical vision is not sufficient to maintain normal obstacle avoidance behaviour during reaching” provides an interesting insight into the role of subcortical vision in obstacle avoidance behaviour. The authors present evidence from a study conducted on six patients with highly circumscribed lesions in the occipital lobe (including V1), which suggests that normal obstacle avoidance behaviour cannot proceed without input from the primary visual cortex.

The article is generally well-written and presents its findings clearly and concisely. The authors provide a thorough review of relevant literature and make use of appropriate methodology to test their hypothesis. However, there are some potential biases and issues worth noting. Firstly, the sample size used for this study was relatively small (N=6), which may limit the generalisability of the findings to larger populations. Secondly, it should be noted that all participants were stroke patients with hemianopia, so it is unclear whether these results would apply to other types of neurological conditions or healthy individuals. Thirdly, while the authors discuss possible implications for action-blindsight performance, they do not provide any direct evidence to support this claim; further research would be needed to explore this issue more thoroughly. Finally, while the authors discuss how their findings relate back to previous research on perception-action models, they do not provide any counterarguments or alternative explanations for their results; thus leaving open questions about how these findings fit into existing theories about perception-action models.

In conclusion, this article provides an interesting insight into the role of subcortical vision in obstacle avoidance behaviour and presents its findings clearly and concisely; however there are some potential biases and issues worth noting such as small sample size and lack of counterarguments or alternative explanations for their results.

# Topics for further research:

* Perception-action models
* Action-blindsight performance
* Hemianopia
* Occipital lobe lesions
* Visual cortex function
* Obstacle avoidance behaviour

# Report location:

<https://www.fullpicture.app/item/06e07d131a0fc852bdec290fc7fa2d87>