# Article information:

13 - Using artificial neural networks to ask ‘why’ questions of minds and brains.pdf
[https://web.kamihq.com/web/viewer.html?state=%7B%22ids%22%3A%5B%221ogh3zjO9w5dZo3Xbjh4VGHRc-brJf-Zc%22%5D%2C%22action%22%3A%22open%22%2C%22userId%22%3A%22107443853422179065627%22%2C%22resourceKeys%22%3A%7B%7D%7D=5594683](https://web.kamihq.com/web/viewer.html?state=%7B%22ids%22%3A%5B%221ogh3zjO9w5dZo3Xbjh4VGHRc-brJf-Zc%22%5D%2C%22action%22%3A%22open%22%2C%22userId%22%3A%22107443853422179065627%22%2C%22resourceKeys%22%3A%7B%7D%7D&kami_user_id=5594683)

# Article summary:

1. Neuroscientists have long characterized the properties and functions of the nervous system, but have not asked ‘why’ questions as often.

2. Artificial neural networks (ANNs) can now be used to approach these ‘why’ questions by asking when the properties of networks optimized for a given task mirror the behavioral and neural characteristics of humans performing the same task.

3. Optimization through evolution or learning during development can explain why minds and brains work in particular ways, much like evolutionary theory explains why species have certain characteristics.

# 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 is generally reliable and trustworthy, as it provides evidence from multiple sources to support its claims. The authors cite Alexander von Humboldt, Charles Darwin, David Marr, and other experts in their field to back up their arguments. Additionally, they provide examples of phenomena in vision and audition that arise spontaneously in ANNs optimized for specific tasks, providing possible explanations for why these phenomena occur in humans.

The article does not appear to be biased or one-sided; it presents both sides of the argument fairly and objectively. It also does not contain any promotional content or partiality towards any particular viewpoint. Furthermore, it acknowledges potential risks associated with using ANNs to ask ‘why’ questions about minds and brains, such as overfitting or incorrect assumptions about how brains work.

The only potential issue with the article is that it does not explore counterarguments or present alternative points of view on the topic at hand. However, this is understandable given that the article is focused on presenting a single argument rather than exploring all sides of an issue.

# Topics for further research:

* Artificial Neural Networks and Human Cognition
* Evolutionary Origins of Human Perception
* Advantages and Disadvantages of ANNs
* ANNs and Overfitting
* ANNs and Brain Modeling
* ANNs and Machine Learning Applications

# Report location:

<https://www.fullpicture.app/item/08f6b866f6e067051ae14cddc7785b3a>