# Article information:

The signing brain: the neurobiology of sign language - ScienceDirect  
<https://www.sciencedirect.com/science/article/abs/pii/S1364661308002192>

# Article summary:

1. The neural organization of signed language is similar to spoken language, with left hemisphere damage leading to impaired language processing in both modalities.

2. Sign language uses space to map the position and orientation of objects or people, and classifiers encode physical attributes and spatial properties.

3. Nonmanual components such as those of the mouth and face are also used in sign language, with facial negation being processed primarily by the right hemisphere.

# 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 titled "The signing brain: the neurobiology of sign language" provides an overview of the neurobiological basis of sign language (SL) processing. The article highlights that SL and spoken language (SpL) share common neural bases, with left hemisphere damage leading to severe impairment in language processing for both modalities. The article also discusses the use of space in SL, the role of the parietal cortex and face/mouth in SL processing.

Overall, the article provides a comprehensive overview of the current understanding of SL processing from a neurobiological perspective. However, there are some potential biases and limitations to consider.

Firstly, the article primarily focuses on deaf native signers, which limits its generalizability to other groups such as hearing native signers or deaf late learners of SL. Additionally, while the article acknowledges that SL and gesture processing have non-identical but not completely independent neural systems, it does not explore this relationship in depth.

Furthermore, while the article notes that greater activation has been reported in the inferior and superior parietal lobules during SL compared to SpL production, it does not provide a clear explanation for why this might be the case. Additionally, while it is suggested that the left superior parietal lobule might be involved in proprioceptive monitoring during sign production, this claim is not supported by evidence.

Finally, while the article provides insights into potential risks associated with SL processing (e.g., specific language impairment or Downs Syndrome), it does not explore potential benefits or advantages associated with using sign language as a primary mode of communication.

In conclusion, while "The signing brain: the neurobiology of sign language" provides valuable insights into our current understanding of SL processing from a neurobiological perspective, there are some limitations and biases to consider. Future research should aim to address these limitations and explore potential benefits associated with using sign language as a primary mode of communication.

# Topics for further research:

* Differences between SL and gesture processing in the brain
* Neural mechanisms underlying SL comprehension in hearing native signers
* The role of the right hemisphere in SL processing
* The impact of SL on cognitive development and executive function
* The relationship between SL and bilingualism/multilingualism
* The potential benefits of using SL as a primary mode of communication for individuals with communication disorders.

# Report location:

<https://www.fullpicture.app/item/736f3aebe4fca385c05dc90eb11be9b9>