

## Second First Sources - Relationship between **Aphantasia** and Embodied Cognition

### PRIMARY SOURCES

1. Dance, C. J., Jaquiere, M., Eagleman, D. M., Porteous, D., Zeman, A., & Simner, J. (2021). What is the relationship between Aphantasia, Synaesthesia and Autism?. *Consciousness and cognition*, 89, 103087.
  - a. This article probes the relationship between Aphantasia, Synesthesia, and Autism. They found that aphantasia and synesthesia can coexist within a person's mental imagery state, as well as aphantasia influences the type of synesthesia that someone has/experiences. Aphantasics also experience higher levels of autistic traits compared to the control group in their experiment. This is relevant and important to my research because it shows that mental imagery is not such a 1 dimensional issue as previously thought, and this adds to the case that we need to be probing this condition in different ways in order to maximize our knowledge.
2. Zeman, A., Dewar, M., & Della Sala, S. (2015). Lives without imagery - Congenital aphantasia. *Cortex; a journal devoted to the study of the nervous system and behavior*, 73, 378–380.
  - a. This is the original paper which coined the name “aphantasia” and details a study about a group of aphantasic individuals and the symptoms that they typically have. This is one of the original studies on aphantasia that are seen as ‘Classic,’ therefore I feel obligated to use this study in part of my research. It will be extremely beneficial to my research because it allows me to refer to the original research that paved the way for the information we now know today about aphantasia.
3. Schendan, H. E., & Ganis, G. (2012). Electrophysiological potentials reveal cortical mechanisms for mental imagery, mental simulation, and grounded (embodied) cognition. *Frontiers in psychology*, 3, 329.
  - a. This article provides empirical evidence for cortical mechanisms of mental imagery and embodied cognition. This is extremely important for my research to back up embodied cognition as well as to use as evidence for anticipated rebuttals against embodied cognition.
4. Keogh, R., & Pearson, J. (2018). The blind mind: No sensory visual imagery in aphantasia. *Cortex; a journal devoted to the study of the nervous system and behavior*, 105, 53–60.

- a. This paper on aphantasia sought to find an answer to the question of if aphantasics just have poor metacognition or if we are truly lacking visual mental imagery. They found that aphantasics do lack mental imagery phenomena and there is not a lack of metacognition. This will be useful in my research to show what aphantasia is with empirical evidence that there is a substantial lack of mental imagery.
- 5. Sheehan P. W. (1967). A shortened form of Betts' questionnaire upon mental imagery. *Journal of clinical psychology*, 23(3), 386–389.
  - a. This short paper lays out the foundation of the QMI, which is important in diagnosing multi-sensory aphantasia. This is important to my research because it will allow me to back up the controversial claim that aphantasia does not solely affect visual mental imagery.

## SECONDARY SOURCES

1. Tibbetts P. E. (2014). Where does cognition occur: in one's head or in one's embodied/extended environment?. *The Quarterly review of biology*, 89(4), 359–368.
  - a. Tibbetts' paper discusses the differences between embodied cognition and the traditional cognitivist's perspective of cognition. This is extremely relevant to providing evidence of EC and backing up points made in relation to potential arguments raised against my perspective.
2. Rucińska, Z., & Gallagher, S. (2021). Making imagination even more embodied: imagination, constraint and epistemic relevance. *Synthese*.
  - a. This paper discusses the effect that embodied cognition can have on imagination (and thus mental imagery). This relates to my project because it will help me synthesize the literature on mental imagery and embodied cognition by providing more insight into how they can be connected.
3. Ziemke, T. (2016). The body of knowledge: On the role of the living body in grounding embodied cognition. *Bio Systems*, 148, 4-11 .
  - b. This paper provides a fresh perspective on embodied cognition because of the relation of AI and biological neural networks and how EC can affect them both. This paper mostly focuses on the biological basis of EC. This is pertinent to my project because it helped me think outside of the box about EC and provided me with a different perspective that I can thus bring to my project.