



by Deborah Parker Wong



Blind Mind's Eye

LACK OF VISUAL IMAGERY ISN'T A TASTING HANDICAP

IN HIS LATEST BOOK, *Message in the Bottle: A Guide to Tasting Wine*, Master Sommelier Tim Gaiser writes about a technique for manipulating mental images in order to deconstruct the flavor profile of wine. It's a visualization technique that he's perfected and that can be used by anyone who can see with their mind's eye. But for the small percentage of individuals with aphantasia, or the inability to generate mental images, the exercise can be replicated with verbal clues in lieu of visual clues.

The term *aphantasia* has been around since 2015. It was coined by Adam Zeman, a professor of cognitive and behavioral neurology at the University of Exeter in the United Kingdom, based on the classical Greek term for imagination, *phantasia*, defined by Aristotle as the "faculty/power by which a phantasma [image or mental representation] is presented to us."

Zeman's work is based on a famous "breakfast table" experiment conducted in 1880 by Sir Francis Galton, who studied the vividness of mental imagery. Galton asked participants to recall and describe their breakfast table, focusing on brightness and color, definition, and scale. His

experiments revealed that some individuals had strong mental imagery, while others struggled to visualize anything or saw nothing at all, illustrating the phenomenon now known as aphantasia.

Anywhere from 1% to 4% of the population is affected by aphantasia, meaning their mind's eye is effectively blind. This condition can be congenital or occur as the result of an injury, as in the case of the patient that Zeman studied, who suffered aphantasia following heart surgery. Researchers attribute it to a disruption of the brain's visuospatial sketchpad, a component of working memory that reduces the vividness of mental images when information is being retrieved from long-term storage.

In an article for *Nautilus*, "My Brain Doesn't Picture Things," author Marco Giancotti explains that the only thing he sees when prompted to visualize everyday objects is "the dark underside of my eyelids." With roughly one out of every 25 people experiencing aphantasia, it's common enough to require alternatives to traditional visualization techniques often used in behavior modification and psychotherapy.

According to Giancotti, confusion about aphantasia comes primarily from the assumption that "imagination" and "forming mental images" are the same thing. He can form spatial thoughts, but without any accompanying imagery, "I'm fully aphantasic, including sight, smell, taste, and sound, unlike others who have low levels of imagery [yet] do dream in images," he said.

The consensus among researchers is that aphantasia is a normal variation in human cognition. It doesn't meet the criteria to be called a disability largely because aphantasics use different, less direct or alternative cognitive strategies for recall of visual memories and, unlike Giancotti, typically have the ability to imagine sounds, flavors, or other non-visual sensations.

The good news for aphantasics is that there are alternative cognitive strategies for tasks that involve mental imagery that lead to equally successful results. "While many tasters use internal imaging to recognize and remember aromas and flavors in a glass of wine, other modalities such as auditory and kinesthetic can also be effective and useful," says Gaiser. 