**Different dimensions of attended and unattended items are maintained in different states in visual working memory**

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Previous studies of information held at different levels of priority in visual working memory for object identity have raised the question of how items outside the focus of attention (unattended memory item, UMI) are maintained. We propose that location information, previously shown to be spontaneously encoded regardless of task relevance, may serve as a stimulus dimension with which the brain “tags” UMIs. In the current study, subjects remembered the orientations of two grating stimuli, presented simultaneously, each at one of six possible locations. After stimulus offset, a retrocue indicated which would be tested for recall, followed by a probe presented at that item’s location, and then followed by a second retrocue that could cue either item with equal probability. We used a separate one-item working memory task to train inverted encoding models (IEMs) on orientation and spatial location separately, and used the IEMs to reconstruct the orientation and spatial location of the attended memory item (AMI) and UMI during the delay period. Our results revealed enhanced representation of the AMI’s orientation, compared with the UMI, most prominently in caudal intraparietal sulcus (IPS). Conversely, representation of the location of the UMI was stronger than that of the AMI in occipital cortex. These results suggest separate mechanisms of maintaining stimulus context versus stimulus identity as a function of attention in visual working memory, with the context of the UMI maintained in an active state, despite the absence of evidence for an active representation of its identity.