

# New Research From Psychological Science

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Read about the latest research published in *Psychological Science*:

## [Alpha-Band Oscillations Enable Spatially and Temporally Resolved Tracking of Covert Spatial Attention](#)

*Joshua J. Foster, David W. Sutterer, John T. Serences, Edward K. Vogel, and Edward Awh*

It has been suggested that oscillatory activity in the alpha-frequency band is integral to spatial attention; research shows that alpha-band activity tracks the specific location a person is attending to. However, a key untested prediction of the relationship between alpha-band oscillation and spatial attention is that the topography of alpha-band activity also tracks the time course of covert orienting. In two experiments, the researchers examined this by collecting electroencephalogram recordings as participants completed a spatial-cueing task (Experiment 1) and a visual-search task (Experiment 2). In the first experiment, the researchers found that the scalp distribution of alpha power could be used to reconstruct spatially specific response profiles that tracked the orienting of spatial attention. In the second experiment, dynamic changes in alpha topography tracked the latency of covert orienting during visual search. These findings provide support for the link between alpha-band oscillations and covert spatial attention.

## [The Road to Language Learning Is Not Entirely Iconic: Iconicity, Neighborhood Density, and Frequency Facilitate Acquisition of Sign Language](#)

*Naomi K. Caselli and Jennie E. Pyers*

Children use the phonological structure of language to help map connections between word forms and their meanings. Although words have a phonological structure, many are also iconically tied to their meanings. This is especially true of sign language. The researchers examined whether the prevalence of iconicity in sign language might overshadow the impact of phonological properties on language learning. The researchers examined the impact of iconicity, lexical frequency, and neighborhood density (the number of lexical items phonologically similar to a target word) on the acquisition of language by reanalyzing data of native-signing deaf children's acquisition of American Sign Language signs. The researchers found that all three components (iconicity, lexical frequency, and neighborhood density) promoted sign acquisitions, suggesting that signing children do not rely solely on iconicity when learning signs but also utilize statistical information about lexical items and their phonological properties.