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Spatial attention: different mechanisms for central and peripheral temporal precues?

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We applied the external noise paradigm (Lu & Doshier, 1998) to investigate mechanism(s) of spatial attention in location precuing. Observers were precued or simultaneously cued to identify one of four pseudo-characters embedded in various amounts of external noise. The cues were either central (E1) or peripheral (E2). Both central and peripheral precuing significantly reduced threshold in the presence of high external noise (16% and 17.5%). *Only* peripheral precuing significantly reduced threshold in the presence of low, or no, external noise (11%). A Perceptual Template Model identified different mechanisms of attention for central and peripheral precuing: external noise exclusion for central precuing; a combination of external noise exclusion and stimulus enhancement (or equivalently, internal additive noise reduction) for peripheral cuing.