Title: Signal detection biases and metacognitive confidence across the hallucination continuum

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Abstract: 1.19

Auditory hallucinations (AH) are a diverse phenomenon. They are reported by around 70% of individuals with schizophrenia, where they are typically distressing and uncontrollable experiences, but recent research has also demonstrated that frequent and non-distressing hallucinations can occur in non-clinical populations, with no need for care. Meta-analytic evidence suggests that auditory hallucinations are associated with a lower criterion in auditory signal detection tasks, such that hallucinating psychosis patients are more likely to report the presence of a speech stimulus embedded in noise, regardless of its actual presence. This has been assumed to provide evidence of increased influence of top-down processes in hallucinating individuals, with recent theorizing in predictive processing suggesting this could be mediated by inappropriately weighted perceptual priors. This talk will provide an overview of a program of research investigating auditory signal detection biases and metacognitive confidence in perceptual judgements across the continuum of hallucinations: from a multi-site study in a sample of > 600 participants from the general population, assessed for hallucination-proneness, in data collected across 11 sites in 7 different countries; in participants with frequent hallucinations but no psychiatric diagnosis or need for care; and in psychosis patients with regular hallucinations. Further studies using neurostimulation applied over the superior temporal lobe, and experimental manipulations using auditory mental imagery to further reduce criterion, will be discussed. Our findings suggest both continuities and discontinuities in the hallucinatory experience, with specific cognitive mechanisms potentially providing protective mechanisms from psychosis.