



**University of
Zurich** ^{UZH}

Department of Economics – Neuroeconomics Seminar

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Uncertainty and expectation in perceptual decisions

Classic perceptual decision paradigms present observers with evidence accumulation tasks in which each trial is independent (such as the random dot kinematogram task). However, in naturalistic behaviour, stimuli are perceived and interpreted in the context of prior expectations that integrate past evidence and extrapolate to predict future events. Arguably, such priors should be probabilistic, representing a distribution of belief over different possible states of the world. I will present evidence from MEG and fMRI studies that probabilistic priors are represented in the brain (in regions that depend on the task at hand) and that maintaining these priors may be a somewhat separate task from decision making or action selection on a single trial basis.