

## **Stability and Flexibility during Sensory/Perceptual Dynamics: Theoretical and Clinical Insights from Our Brain**

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Sensory and perceptual sampling represents a puzzle for philosophers and neuroscientists. Recent evidence seems to indicate that the apparently continuous stream of our experience relies on discrete and periodic sensory/perceptual cycles, therefore suggesting that sensory and perceptual dynamics follow specific sampling rules [1]. However, our brain is not prone to encode (primarily, essentially, exclusively) pure spatio-temporal dynamics, but it also gives meaning to these spatio-temporal dynamics. How temporal dynamics drive sensory and perceptual experience is matter of debate in the literature. Benefiting from the construct of temporal binding window (TBW) [2] [3], I will focus on specific features of temporal dynamics and their theoretical, experimental, and clinical implications. Indeed, beyond the success of the construct of TBW, it is not clear how temporal dynamics may modulate sensory and perceptual binding. TBW is modulable by – for example - spatial constraints [4], noise [5], priors [6], subliminal stimuli [7], and mental imagery [8]. Even more interesting, TBW seems to be – to some degree – predictable[9][10]. Taken together, these works seem to suggest that our sensory/perceptual sampling is – to some extent - flexible and stable.

### **References**

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