

Paper Title:	The construction of physical reality by phase locking processes among perception-action cycles. <i>Towards a psychological theory of brain</i>
Abstract:	The paper presents and defends a constructivist approach of the perception of physical reality which is novel in five respects : <ol style="list-style-type: none">1. It is based on a <i>monism</i> of the cycle rooted in the baldwino-piagetian notion of <i>organization</i> conceived as a <i>perception-action cycle</i> tending to self reproduction.2. It is proposed that like any other cycles in physics, chemistry or biology, perception-action cycles constitutive of the body tend mechanically to <i>phase locking</i> at inter and intra-subjective levels.3. It is suggested that through locking perception-action cycles of different modalities come to a spatiotemporal <i>agreement</i> which makes the common <i>phase</i> appear as a <i>reality</i>, i.e., something independent of any of the cycles which are locked on it.4. Empirical validation will be found in a meta-analysis of the <i>negative asynchrony</i> phenomena observed in experimental situations of finger, hand or feet tapping.5. In the organization of the perception-action cycle, the brain appears to be situated at the precise locus where interactions with other cycles occur. This means that it is nor the <i>alpha</i> neither the <i>omega</i> of mind processes but a specific part of the body which evolved as the best possible medium for the phase-locking processes of ontologically priming cycles.

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