



Carleton University | Department of Philosophy

# colloquium

## "COMPUTATION IS MEDIUM-INDEPENDENT, BUT COMPUTATIONAL EXPLANATION IS NOT"

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The claim that computation is medium-independent is a standard premise in arguments for the autonomy of cognitive psychology. We argue that while computation is medium-independent, there are an important class of computational explanations which are medium-dependent. Such hybrid explanations involve intertwined computational and mechanistic facts that cannot be neatly separated. We show that there are important hybrid explanations even for very standard computational phenomena. Along the way, we will answer the pressing question of why the Atari 2600 version of Pac-Man has rectangular pellets rather than square ones. We then use this to demonstrate that cognitive psychologists give hybrid explanations, and argue that cognitive psychology should be treated as a holistic endeavor in which precise interdisciplinary boundaries do not play a central role.

**THURSDAY, JANUARY 14, 2021  
4:00 P.M. EST**

**VIA ZOOM | REGISTER FOR LINK**

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