

On the reuse of inhibitory mechanisms by negation

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Negation is a ubiquitous feature of human language with critical functions in communication and cognition. In this talk, I will address its most salient cognitive effect: the ability to somehow inhibit or suppress the concepts under their scope. After reviewing the evidence suggesting suppression effect for negated concepts, I will argue that the algorithmic and implementational characterizations of this inhibitory action remain poorly understood, and that a new approach is therefore required. Then, as an example of a new approach, I will present the hypothesis that inhibition-like effects of negation involves the reuse of domain-general mechanisms linked to both cognitive and response inhibition. To support this hypothesis, I will describe research in our lab which show that negation interacts with neurophysiological markers of inhibition. To end, I will outline new lines of research that might help to understand how negation processing is implemented at a neurocognitive level.