



You are cordially invited to the
public defence of my doctoral thesis

METACOGNITION AND COGNITIVE CONTROL

by Kobe Desender

Wednesday, June 8th
Time: 17.00
Promotiezaal VUB
Pleinlaan 2, 1050 Brussel

Please confirm your presence at
the walking dinner by May 31st
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Summary

Human cognition is characterized by an extreme flexibility, allowing us to quickly react to rapidly changing circumstances. For example, when visiting London, this capacity of cognitive control allows us to overrule our natural tendency to look left when crossing streets, and rather look to the right instead. Despite an enormous number of scientific studies tackling the cognitive and neural underpinnings of cognitive control, the role of metacognition in this process has been largely overlooked. Using both behavioural and electrophysiological measures, it was shown that task performance and metacognition have dissociable neural correlates. Most crucially, evidence was provided that these metacognitive experiences play a role in the exertion of cognitive control. Using a method that is capable of dissociating metacognition from actual performance, it was shown that metacognition is critically involved in the decision to invest cognitive control and the decision to avoid investing cognitive control. On top of this, we demonstrated that the weight of the cues providing input to the metacognitive experiences can be dynamically altered by means of training. Taken together, this dissertation provides convincing evidence for a critical role of metacognition in cognitive control.