

DOCTORAL DISSERTATION IN PSYCHOLOGY

ABSTRACT

Buratti, S. (2013) *Meta-metacognition: The regulation of confidence realism in episodic and semantic memory*. Department of Psychology, University of Gothenburg, Sweden

The aim of this thesis was to investigate whether people have the ability to make their confidence judgments for episodic and semantic memory tasks more realistic. How realistic a person's confidence judgments are reflects how well their confidence judgments for their memory reports correspond to the actual correctness of the reports. The regulation of first-order confidence judgments by making successful second-order judgments can be seen as a form of meta-metacognition, since it aims at regulating a metacognitive process. **Study I** consisted of two experiments, and investigated whether people could increase the realism in their reports by excluding the confidence judgments they believed were unrealistic. The participants were shown a video clip and, in the Confidence task, were told to answer questions about the video and rate how confident they were that they had answered the questions correctly. Half of the participants answered two-alternative questions (recognition), and half had to come up with their own answers (recall). The participants then performed the Exclusion task, in which they were asked to exclude the 15 answers they believed had the most unrealistic confidence judgments. In Experiment 1 the recognition condition *decreased* their level of realism in their report, and in Experiment 2 the recall condition increased their level of realism. In **Study II**, the aim was to investigate whether people could increase the realism in their report by modifying the confidence judgments they believed were unrealistic. The relationship between realism of confidence and two possible memory cues, the phenomenological memory qualities *Remember/Know* and processing fluency, was investigated as well. The procedure was similar to that in Study I, with the exception that all participants answered recall questions and that the participants in the so-called Adjustment task were told to modify the confidence judgments they believed were unrealistic. Results showed that the participants were able to increase the realism of their confidence judgments, even though the effect was small. In **Study III**, the aim was to investigate whether people had the possibility to increase their confidence realism in semantic memory reports and whether individual differences, personality and cognitive styles, could help explain differences in this ability. The procedure was very similar to that in Study II, and the results showed that the participants only managed to increase the realism for correct items in the Adjustment task. In **Study IV**, the aim was to investigate whether the improvements in realism found in Study II could be further enhanced by giving people advice during the Adjustment task and asking them to "try more" in an Extra Adjustment task. However, results showed that although the participants managed to improve their realism like in Study II, they were not able to further improve it when given advice or by "trying more". In all, Studies II, III and IV (and to some extent also Study I) lend support to the idea that people are able to regulate the realism of their confidence judgments by making successful second-order judgments.

Keywords confidence judgments, realism of confidence, calibration, debiasing, episodic memory, semantic memory, second-order judgments, metacognition, meta-metacognition

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Meta-metacognition: The regulation of confidence realism in episodic and semantic memory

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Avhandling för avläggande av filosofie doktorsexamen i psykologi, som med vederbörligt tillstånd av samhällsvetenskapliga fakulteten vid Göteborgs universitet kommer att offentligen försvaras fredagen den 14 juni kl. 10.00 i sal F1, Psykologiska institutionen, Haraldsgatan 1, Göteborg.

Opponent: Docent Philip Higham, School of Psychology, University of Southampton

Föreliggande avhandling grundar sig på följande artiklar:

- I. Buratti, S., & Allwood, C. M. (2012). The accuracy of meta-metacognitive judgments: Regulating the realism of confidence. *Cognitive Processing*, 13(3), 243-253. doi: 10.1007/s10339-012-0440-5
- II. Buratti, S., & Allwood, C. M. (2012). Improved realism of confidence for an episodic memory event. *Judgment and Decision Making*, 7(5), 590-601. Retrieved from <http://journal.sjdm.org/11/111121a/jdm111121a.html>
- III. Buratti, S., Allwood, C. M., & Kleitman, S. (2013). First- and second-order metacognitive judgments of semantic memory reports: The influence of personality traits and cognitive styles. *Metacognition and Learning*, 8(1), 79-102. doi: 10.1007/s11409-013-9096-5
- IV. Buratti, S., & Allwood, C. M. (2013). *The effects of advice and "try more" instructions on improving realism of confidence*. Manuscript submitted for publication.



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