People have the ability to self-reflect and to control their own behaviour. We already know a lot about what influences the accuracy of our knowledge assessments or the efficiency of a problem-solving strategy we have applied, and about how we use this knowledge to change our behaviour. However, we still do not understand the workings of the basic metacognitive processes that monitor and regulate other cognitive processes. Contemporary research on the mechanisms of metacognition usually deals with monitoring and regulation separately, often in different theoretical contexts and using different research paradigms. The assumption underlying this project is that monitoring and regulation should not be studied independently of each other as they constantly influence each other. Lower-order processes are constantly controlled and regulated whilst simultaneously influencing the outcome of the monitoring process that guides further regulation.

The general goal of this project is to increase our understanding of the interplay between metacognitive monitoring and metacognitive regulation. Capitalising on knowledge of how people intentionally monitor and control their cognitive activity, I will investigate how metacognitive processes interact in situations in which the scope of possible intentional regulation is limited in various ways. I will aim to determine whether and how paying attention to the effects of monitoring influences the regulatory processes; whether the increased need for regulation changes the monitoring processes and their accuracy; and whether and how metacognitive processes are regulated. I plan to do four behavioural studies using a set of tasks that engage different cognitive processes such as visual perception, episodic memory, and semantic memory. These tasks also differ in the way in which regulation might occur.

The obtained data will allow contemporary models of metacognition to be modified so that they can account for the complex relationships between cognition and metacognition. Consequently, the data will also contribute to the development of a theory that describes how metacognitive processes work, regardless of the type of task faced by the cognitive system.