

Every time you try to recall something from your past, you use your autobiographical memory. However, sometimes memories can come to your mind spontaneously, without any proceeding attempt to recall it. This kind of memories is known as involuntary autobiographical memories. Sometimes they may become a burden especially when they refer to the events we want to forget. It happens especially in post-traumatic stress disorder (PTSD) in which memories repeatedly intrude upon consciousness and are extremely distressing and difficult to control. For that reason such intrusive memories are one of defining features of PTSD.

The project founded by National Science Centre aimed to answer the question about the cognitive mechanisms of involuntary autobiographical memories. The main questions are: how do they come to our mind and why do some of us experience them so frequently. Answering these questions has important implications for our understanding of intrusive memories in posttraumatic stress disorder (PTSD) and related disorders. For that reason, the realisation of the SONATA project is socially important since it may help developing strategies for coping with such intrusive memories.

Apart from these socially important implications the involuntary memories research completes in a significant way knowledge concerning construction of autobiographical memories. Research on involuntary memories verifies adopted by the researchers assumption, that one, very specific cue may trigger involuntarily a memory and its construction and retrieval may be unconscious. Finally, involuntary memories are also samples and in the same time indicators of the continuous, conscious and unconscious mental activity that may have also a significant impact on people's mood and well-being.

All planned experimental studies aim to thoroughly describe the role and mutual interrelationship of both cognitive control (e.g. the ability to self-control) and cognitive inhibition (e.g. the ability to tune out stimuli that are irrelevant) in the formation of involuntary autobiographical memories. For that reason, the realization of the project may give us a comprehensive understanding of mechanisms of involuntary remembering our past.