

Abstract for the general public

Health problems, underperformance at school or work, prolonged unemployment, as well as global threats such as economic, ecological and public health crises are examples of situations that can evoke a strong sense of uncontrollability. A common response to prolonged control deprivation experiences relies on passive coping strategies that can be characterized by motivational withdrawal and avoidance. Active or problem-focused coping is often discarded as it brings the costs of anticipated effortful actions. The current state of research in the domain of cognitive, motivational, social and health psychology does not provide a clear answer to the questions of *what are the mechanisms leading to investment of cognitive effort* and *how such effortful information processing can be effectively potentiated* when people experience a lack of control. In this project, we aim at investigating the specific conditions that facilitate the investment of cognitive effort in uncontrollable situations. More specifically, we plan to investigate how the factors of behavioral uncertainty associated with lack of control experiences and cognitive effort valuation affect subjective experiences of agency and control but also how they shape the performance on cognitively demanding tasks. We also plan to investigate, by using newly developed experimental paradigms manipulating the level of behavioral uncertainty and valuation of effort, how the use of active coping strategies as a response to uncontrollability can be enhanced. We considered here the investment of cognitive effort in a given activity is as a potential means to restore a sense of personal control.

In this project, we plan to conduct three lines of studies, in which we will systematically test our predictions related to the role of perceived behavioral uncertainty and effort valuation as factors that modulate the amount of cognitive effort invested in a given activity. First, we plan to examine how these two factors are related to subjective experiences of uncertainty, effort, but also a sense of agency and personal control. Our next aim is to assess the impact of behavioral uncertainty and effort valuation on effort investment in tasks engaging cognitive control processes of attentional selection and flexibility. Finally, we plan to assess, using the experimental paradigms developed in the first line of research, how effortful processing can be facilitated in a social context, measuring the willingness to take perspective of others. We plan to conduct overall ten studies that would allow us to identify the conditions that boost the use of effort-requiring, active coping strategies as a response to uncontrollable situations.

The question of how uncontrollability experiences affect investment in vs withdrawal from effortful mental activity has been present in the debate on the motivational and cognitive consequences of control deprivation for decades. Despite a broad range of findings that provide support for both types of coping responses - active and passive - an integrative theoretical framework that would define the conditions that facilitate effort expenditure after control deprivation has not been developed yet. In this project, we apply a novel approach that is informed by research mainly from cognitive and motivational sciences to specify and test the role of effort valuation processes and of varying levels of behavioral uncertainty as possible determinants of engagement in laborious cognitive activity. We expect that this research can advance our understanding of how effective active coping mechanisms with uncontrollability work and how individuals can gain immunity against the detrimental impact of helplessness, apathy and alienation on their health-related and social behavior.