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ABSTRACT

This dissertation concerns the influence of multitasking vs. single tasking and situational increase vs. situational decrease of the need for cognitive closure on divergent thinking (fluency of thinking, originality of ideas) and thinking style (rational vs. intuitive), depending on the dispositional need for cognitive closure. It was posited that multitasking and a manipulation which situationally decreases the need for closure would both increase so-called cognitive openness because they activate multi-directional thinking and broaden the scope of processed information. This could potentially be the basis of the development of creative intuition and increase the effectiveness of divergent thinking. We expected that the opposite results would be found after a manipulation which situationally increases the need for closure and during single tasking, due to the activation of unidirectional thinking. Both these factors would decrease cognitive openness.

Two studies were performed: one experimental ($N = 215$) and one psychometric ($N = 111$). They took place at the same time, and the division of participants into groups was random. The entire group ($N = 316$) was socio-demographically diverse. The participants were professionally active individuals (91.7%) or university students (8.3%). The mean age in the sample was 30.7 years. The aim of the experimental study was to verify six hypotheses and the aim of the psychometric study was to estimate the reliability of the measures of divergent thinking. The divergent task consisted of inventing novel uses for ordinary items and it was solved before and after a situational manipulation of the need for closure in either single- or multi- task conditions. Manipulation of working conditions in the multitask variant constituted of switching the participants to an extra task. There was no such switch in the single task variant. The second manipulation – of the situational levels of the need for closure – consisted of thinking up possible points of view on some social issue in the decreasing variant, and producing one solution for a given task in the increasing variant. The originality

of ideas increased in the multi-task conditions and as a result of the manipulation to situationally decrease the need for closure; it decreased in the single-task conditions and as a result of manipulations situationally increasing the need for closure. High levels of dispositional need for closure were associated with a rational thinking style and low levels with an intuitive thinking style. Moreover, intuitiveness was activated by the manipulation situationally decreasing the need for closure in the single-task conditions and rationality was activated by the manipulation situationally increasing the need for closure in single-task conditions.

Higher originality of divergent thinking and intuitiveness in individuals with low dispositional need for cognitive closure in multi-task conditions as well as in people under the influence of the manipulation which situationally decreases the need for closure suggest the efficacy of very simple (simpler than professional training sessions) techniques for developing creativity. At the same time, being in line with one of the hypotheses, evidence of the positive influence of multitasking on originality of thinking opens a new perspective on multitasking: it has the potential to foster some mental processes (divergent thinking, in this case) and is not simply a cognitive burden. In future studies, it would be worthwhile to use a tool that is more sensitive to changes in levels of need for cognitive closure and also to measure divergent thinking with a set of more diverse tasks.

Key words: multitasking, single tasking, need for cognitive closure, rational thinking style, intuitive thinking style, divergent thinking.