

<b>School/Department:</b>	<i>Faculty of Social Sciences, Department of Psychology, Education, and Child Studies (DPECS).</i>
<b>Project Title:</b>	<b>Go with the flow (at work): The psychological and neurological aspects of becoming fully absorbed in a task</b>
<b>Abstract:</b>	<p>In occupational health research, the topic of flow has received much attention. Flow can be defined as a mental state in which one is completely absorbed into the task at hand, and in which one usually tends to perform at the best of his/her abilities. The state of flow is also accompanied with low levels of stress and self-referential thinking (e.g., no worries, or self-doubts), and with a changed perception of time (i.e., time seems to fly by).</p> <p>The state of flow has been related to a wide range of positive outcomes such as good job performance, higher well-being, and a more general sense of meaningfulness. However, currently there is not much research that looks at the basic psychological as well as neurological aspects of flow. Yet, looking at flow from such a perspective may be useful because I can help to understand what flow really is, and possibly also how it can be promoted.</p> <p>The general idea is that several large brain networks play important roles in establishing flow. First, flow mainly tends to occur on tasks that are considered intrinsically motivating or rewarding. As such, it is expected that the brain reward systems are involved in flow and those systems ensure that people are willing and able to strongly focus on the task they are working on.</p> <p>Another idea is that, during flow, people do not think much about themselves and do not worry. This is referred to as a low level of self-referential thinking. One of the brain systems, known to relate to self-referential thinking is the default mode network (DMN). Thus, it is expected that the activation of this system is rather low during flow.</p> <p>Finally, the strong task focus that is characteristic for flow is expected to be accompanied with relatively strong activation of the, so-called, central executive network that is crucial in regulating attention.</p> <p>In this project, it is planned to conduct several studies on flow that combine subjective (questionnaires), behavioral (performance), and psychophysiological (EEG) measures. Questions that will be addressed are: 1) What cognitive and motivational brain systems are involved in flow and engagement? 2) Which task characteristics are</p>

	<p>able to elicit the presumed reward and attentional systems of flow and engagement?</p> <p>The project will include controlled laboratory studies as well as field studies. Preferred psychophysiological measures are EEG (event-related potentials), heart rate and skin conductance, and pupil diameter. Behavioral measures will be performance on laboratory tasks (lab studies) or actual performance on work-related tasks (field studies).</p>
<b>Requirements of candidate:</b>	<p><b>Background:</b> Master's in Psychology, for example Cognitive or Biological Psychology, Work &amp; Organizational Psychology, or Experimental Psychology. Interest in, and experience with psychophysiological measures (e.g., EEG, heart rate, pupil measures). Interest in topics related to the project such as performance, engagement/flow, brain reward systems, motivation.</p> <p><b>Master's degree:</b> Yes</p> <p><b>EUR requirement:</b>        IELTS: 7.5 (min. 6.0 for all subs.)        Or, TOEFL: 100 (min. 20 for all subs.)</p>
<b>Supervisor information:</b>	<p><b>About the supervisor:</b></p> <p><b>Prof. dr. Dimitri van der Linden</b> is professor of Work &amp; Organizational Psychology at the Erasmus University Rotterdam. His two main areas of research are: I) cognitive and motivational processes in fatigue and stress, and II) Individual differences. In the area of fatigue and stress, Van der Linden has written several influential articles on the decline of cognitive processes in fatigue. Moreover, Van der Linden and his colleagues were among the first to directly test the cognitive effects of burnout in employees. In the area of individual differences, Van der Linden is one of the leading experts on the so-called General Factor of Personality (GFP). One of his papers on this topic is, currently, the most highly cited paper in Journal of Research in Personality.</p> <p><b>Contact information:</b>        Prof. dr. Dimitri van der Linden  <a href="mailto:vanderlinden@fsw.eur.nl">vanderlinden@fsw.eur.nl</a></p> <p><b>Websites:</b></p>

	<p>Scholar.Google:  <a href="https://scholar.google.nl/citations?hl=nl&amp;user=fkzNrHkAAAAJ">https://scholar.google.nl/citations?hl=nl&amp;user=fkzNrHkAAAAJ</a>          or          Researchgate:  <a href="https://www.researchgate.net/profile/Dimitri_Linden">https://www.researchgate.net/profile/Dimitri_Linden</a></p> <p><b>Recent Publications (2017-2019) Van der Linden:</b>          Zotzmann, Y., van der Linden, D., &amp; Wyrwa, K. (2019). The relation between country differences, cultural values, personality dimensions, and error orientation: An approach across three continents—Asia, Europe, and North America. <i>Safety Science</i>, 120, 185-193.</p> <p>Scharp, Y. S., Breevaart, K., Bakker, A. B., &amp; van der Linden, D. (2019). Daily playful work design: A trait activation perspective. <i>Journal of Research in Personality</i>, 82, 103850.</p> <p>Pekaar, K. A., Bakker, A. B., Born, M. Ph., Van der Linden, D. (2019). The Consequences of Self-and Other-Focused Emotional Intelligence: Not All Sunshine and Roses. <i>Journal of Occupational Health Psychology</i>, In press.</p> <p>Dunkel, C. S., Schakleford, T. K., Nedelec, J. L., Van der Linden, D. (2019). Cross-Trait Assortment for Intelligence and Physical Attractiveness in a Long-Term Mating Context. <i>Evolutionary Behavioral Sciences</i>. In press.</p> <p>Van der Linden, D., Dutton, E. &amp; Madison, G. (2019). National-level indicators of androgens are related to the global distribution of scientific productivity and science Nobel prizes. <i>Journal of Creative Behavior</i>. In press.</p> <p>Petrou, P., Van der Linden, D., &amp; Salcescu, O.C. (2019). When Breaking the Rules Relates to Creativity: The Role of Creative Problem-Solving Demands and Organizational Constraints. <i>Journal of Creative Behavior</i>. In press.</p> <p>Dunkel, C. S., Van der Linden, D., Fuller, E. I., &amp; Hengartner, M. P. (2019). Family Cohesion and the General Factor of Personality: Examining Differences in Monozygotic Twin Pairs. <i>Evolutionary Psychological Science</i>. In press.</p> <p>Dunkel, C. S., Van der Linden, D., Kawamoto, T. (2019). Sociability toward Strangers in Early Childhood Predicts the General Factor of Personality in Early Adolescence. <i>Infant &amp; Child development</i>, in press.</p> <p>Pekaar, K. A., Bakker, A.B, Van der Linden, D., Born, M.P., Sirén, H.J. (2018). Managing own and others' emotions: A weekly diary study on the enactment of emotional intelligence. <i>Vocational Behavior</i>, 109, 137-151,</p> <p>van der Linden, D., Dunkel, C.S., Tops, M., Hengartner, M.P., Petrou, P. (2018). Life history strategy and stress: An effect of stressful life events, coping strategies, or both? <i>Personality and Individual Differences</i>, 135, 277-285.</p>
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	<p>Massar, S. A. A., Csatho, A. &amp; Van der Linden, D. (2018). Quantifying the motivational effects of cognitive fatigue through effort-based decision making. <i>Frontiers in Psychology</i>. <a href="https://doi.org/10.3389/fpsyg.2018.00843">https://doi.org/10.3389/fpsyg.2018.00843</a></p> <p>Van der Linden, D., Dunkel, C. S., Figueredo, A.J., Gurven, M., Von Rueden, C., &amp; Woodley of Menie, M. A. (2018). How Universal is the General Factor of Personality? An analysis of the Big Five in Forager-farmers of the Bolivian Amazon <i>Journal of Cross Cultural Psychology</i>, 49, 1081-1097.</p> <p>Pelt, D., Van der Linden, D., Born, M, Ph. (2018). How Emotional Intelligence Might Get You the Job: The Relationship Between Trait Emotional Intelligence and Faking on Personality Tests. <i>Human Performance</i>, 31, 33-54.</p> <p>Pekaar, K. A., Bakker, A. B., van der Linden, D., &amp; Born, M. P. (2018). Self- and other-focused emotional intelligence: Development and validation of the Rotterdam Emotional Intelligence Scale (REIS). <i>Personality and Individual Differences</i>, 120, 222-233.</p> <p>Dunkel, C. S., Nedelec, J. L., &amp; van der Linden, D. (2018). Using monozygotic twin differences to examine the relationship between parental affection and personality: a life history account. <i>Evolution and Human Behavior</i>, 39, 52-58.</p> <p>van der Linden, D., Schermer, J. A., de Zeeuw, E., Dunkel, C. S., Pekaar, K. A., Bakker, A. B., ... &amp; Petrides, K. V. (2018). Overlap Between the General Factor of Personality and Trait Emotional Intelligence: A Genetic Correlation Study. <i>Behavior genetics</i>, 48, 147-154.</p> <p>Van Damme, S., Becker, S., &amp; Van der Linden, D. (2018). Tired of pain? Toward a better understanding of fatigue in chronic pain. <i>Pain</i>, 159(1), 7-10.</p> <p>Hengartner, M. P., Van der Linden, D. Dunkel, C. S. (2017). Establishing the substantive interpretation of the GFP by considering evidence from research on personality disorders and Animal Personality. <i>Frontiers in Psychology</i>, 8, 1771.</p> <p>Pelt, D., Van der Linden, D. , Dunkel, C. S., &amp; Born, M. P.h. (2017). The general factor of personality and job performance: Meta-analytic evidence. <i>International Journal of Selection and Assessment</i>. 25, 333-346.</p> <p>Dunkel, C. S., &amp; van der Linden, D. (2017). The General Factor of Personality and Character: A Reanalysis. <i>The Journal of genetic psychology</i>, 178(6), 334-338.</p> <p>Kawamoto, T., Van der Linden, D., &amp; Dunkel, C. S. (2017). The General Factor of Personality (GFP) and moral foundations. <i>Personality and Individual Differences</i>, 119, 78-82.</p> <p>Dunkel, C. S., Nedelec, J. L., van der Linden, D., &amp; Marshall, R. L. (2017).</p>
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