

ECNP Congress, Amsterdam – press release

***Study confirms that people with ADHD can be more creative.
The reason may be that they let their mind wander.***

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Type of study: not peer-reviewed/observational study/people

New research confirms that ADHD (Attention Deficit Hyperactivity Disorder) can be linked to increased creativity and suggests that this creativity is associated with a greater tendency to let your mind wander. This first study to explain the link between ADHD and creativity, is presented at the ECNP congress in Amsterdam.

Lead researcher Han Fang (from the Radboud University Medical Centre, the Netherlands) said:

“Previous research pointed to mind wandering as a possible factor linking ADHD and creativity, but until now no study has directly examined this connection. We conducted two studies, utilising 2 different groups of ADHD patients and healthy controls, one from a European group curated by the ECNP, and a second study from a UK group. In total there were 750 participants. Separately analysing results from 2 independent groups means that we can have greater confidence in the results”.

The researchers examined the correlations between ADHD characteristics, creativity, and functional impairments and the role of mind wandering in those links. Both patient groups showed classic ADHD characteristics, such as lack of attention, impulsivity, and the tendency to let one’s mind wander away from the subject in hand. Both studies showed that more ADHD symptoms were correlated with more mind wandering.

Mind wandering is defined as shifting attention away from the task at hand toward internally generated thoughts. Everyone is subject to a certain amount of mind wandering, but this is seen more in people with ADHD.

Han Fang added:

“Previous researchers have been able to distinguish two different types of mind wandering. It can be a loss of concentration, where your mind may drift from subject to subject. This is ‘spontaneous mind-wandering’. Another type is ‘deliberate mind wandering’, where people give themselves the freedom to drift off-subject, where they ‘allow their thoughts to take a different course’. Psychiatrists have developed ways of measuring how much people are subject to these different tendencies”.

The researchers also measured creativity in both groups (there are standard ways of measuring this, for example by asking people to find a creative use for an everyday

object). They then looked at how creativity was associated with the different types of mind wandering.

Dr Han Fang said:

“We found that people with more ADHD traits such as lack of attention, hyperactivity, or impulsivity, score higher on creative achievements in both studies. This supports previous research. Additionally, we found that mind wandering, particularly deliberate mind wandering, where people allow their “thoughts to wander on purpose”, was associated with greater creativity in people with ADHD. This suggests that mind wandering may be an underlying factor connecting ADHD and creativity.

This may have practical implications, for both psychoeducation and treatment. For psychoeducation, specially designed programs or courses that teach individuals how to utilize their spontaneous ideas, for example turning them into creative outputs, could help individuals with ADHD traits harness the benefits of mind wandering. For treatment, ADHD-tailored mindfulness-based interventions that seek to decrease spontaneous mind wandering or transform it into more deliberate forms may reduce functional impairments and enhance treatment outcomes. This is the first time this link has been investigated, so we need to see more studies which confirm the findings”.

Commenting, K.P. Lesch (Professor of Molecular Psychiatry, University of Würzburg, Germany) said

"Mind wandering is one of the critical resources on which the remarkable creativity of high-functioning ADHD individuals is based. This makes them such an incredibly valuable asset for our society and the future of our planet”.

ENDS

Notes for Editors

This work is presented at the 38th ECNP (European College of Neuropsychopharmacology) Congress, taking place in Amsterdam and online 11-14th October 2025, see <https://www.ecnp.eu/congress2025/>. With more than 6,500 participants the ECNP Congress is Europe’s leading platform for the science and treatment of brain disorders.

Conference Abstract

Mind wandering as a mediator in the link between ADHD and creativity: evidence from two independent samples

H. Fang¹, A. De Roubaix¹, O. Grimm², G.C. Ziegler³, S. Kittel-Schneider⁴, J.M. Réthelyi⁵, T. Kilencz⁵, L. Balogh⁵, C.U. Greven⁶, M. Hoogman¹

Introduction: Creativity has been identified as a strength in adults with ADHD, particularly regarding divergent thinking and creative achievement. Mind wandering, associated with both ADHD and

creativity, may mediate this link. However, its role, particularly the distinct contributions of deliberate and spontaneous mind wandering, remains unexplored. Additionally, as both ADHD and mind wandering have been linked to functional impairments, mind wandering may also mediate the association between ADHD and functional impairments, which is another under-researched area. This study examined whether mind wandering mediates the relationship between ADHD trait dimensions (inattentiveness and hyperactivity-impulsivity) and creativity (divergent thinking and creative achievement) across two independent samples. It also explored whether mind wandering mediates the relationship between ADHD trait dimensions and functional impairments in one of the samples.

Methods: Study 1 involved 347 participants ($n_{\text{case}} = 275$, $n_{\text{control}} = 72$) from the test battery of the ECNP network *ADHD across the lifespan working group*. ADHD traits, mind wandering, and creative achievement were self-reported through the Adult ADHD Self-Report Scale-V1.1 (ASRS), Mind Excessively Wandering Scale, and Creative Achievement Questionnaire (CAQ). Study 2 involved 403 UK participants recruited via Prolific. Measures included ADHD traits (ASRS), mind wandering (Deliberate and Spontaneous Mind Wandering scales), divergent thinking (Alternate Uses Task: fluency, flexibility, originality), creative achievement (CAQ), and functional impairments (Criterion C of the Diagnostic Interview for ADHD in Adults). Correlation and regression analyses were conducted to examine the associations between ADHD traits, mind wandering, creativity, and functional impairments. Mediation analyses were conducted to explore the role of mind wandering in the link between ADHD traits and creativity and the link between ADHD traits and functional impairments.

Results: Both inattentiveness and hyperactivity-impulsivity positively correlated with creative achievement and mind wandering (both studies), but showed no significant correlations with divergent thinking (Study 2). Mind wandering, particularly deliberate mind wandering, positively correlated with divergent thinking (Study 2) and creative achievement (both studies). Functional impairments positively correlated with inattentiveness and spontaneous mind wandering (Study 2). Mediation analyses showed that mind wandering (both datasets), particularly deliberate mind wandering (Study 2), mediated the relationship between both inattentiveness and hyperactivity-impulsivity and both divergent thinking and creative achievement. Mediation analyses also showed that spontaneous mind wandering mediated the relationship between both inattentiveness and hyperactivity-impulsivity and functional impairments.

Conclusion: Our results confirm that ADHD traits are associated with creativity, with mind wandering—particularly deliberate mind wandering—emerging as a mediating factor. The consistency of these findings across two relatively large, independent samples and across different mind wandering measures demonstrates the robustness of our results and highlights the potential of mind wandering to explain the ADHD-creativity link. We also found that ADHD traits are associated with functional impairments, mediated only by spontaneous mind wandering. It indicates that different subtypes of mind wandering may influence individuals with ADHD in different ways. By exploring factors linking ADHD with both creativity and functional impairments, our study may open new avenues for fostering strengths and mitigating functional impairments in ADHD.

Conflict of interest

Disclosure statement:

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This will be presented on Saturday 11 October PS01-0168.