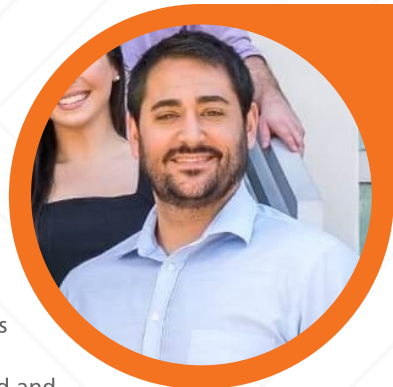


Anthony Zanesco
Postdoctoral Associate**Field of Study**
Psychology**What impact do you want your research to have?**

The wandering of our attention and thought is one of the most fundamental human experiences. Our thoughts are ever-present in our awareness. When we need to focus on some task or activity, our thoughts can distract us from what we are doing. And our thoughts can affect our mood and psychological health when we ruminate about things that happened in the past or worry about things that might happen in the future. Investigating mind wandering is therefore important for understanding how we pay attention and the consequences of certain thought patterns on psychological health. I see this basic research having important clinical relevance in the future. Training in mindfulness might be one approach for teaching individuals to better regulate their attention and thought in beneficial ways.

What inspired you to pursue your area of research?

My interest in this research area began with my exposure to mindfulness as an undergraduate student. Watching my own thoughts during mindfulness practice gave me an appreciation for their spontaneity and how the ways in which we relate to those thoughts can affect how we see the world. I wanted to understand why our minds are always wandering. I would go on to continue doing research on mindfulness during my time as an undergraduate and graduate student at the University of California, Davis. And now, as a postdoctoral associate, I have circled back around to studying these more fundamental questions about the wandering mind.

What is most exciting about your research?

One of the most exciting aspects of my research is the growth and widespread availability in recent years of advanced computational methods for identifying temporal patterns in data. Machine and deep learning approaches, for example, provide powerful new tools for data analysis. Our thoughts seem like they occur at random, but can we predict when someone might engage in mind wandering or the kind of thought they might have? To the degree that there are predictable patterns in mind wandering and spontaneous thought, or in the brain activity that accompanies their occurrence, machine and deep learning methods seem like a promising solution to try and answer these questions.

What makes your research unique?

The methodological approaches I have used to explore my research questions are probably some of the most unique aspects of my work. This includes the methods I have used to examine associations between spontaneous brain dynamics and its links to mind wandering. Recording electrical activity at the scalp using EEG provides a window into millisecond-by-millisecond changes in brain activity. But decomposing patterns in this activity and linking it to attentional states and ongoing thought is complex. I have used novel approaches to try to examine these associations between different brain states and mind wandering.

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