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摘要

# Delay discounting mediates the association between posterior insular cortex volume and social media addiction symptoms.

[Turel O](https://www.ncbi.nlm.nih.gov/pubmed/?term=Turel%20O%5BAuthor%5D&cauthor=true&cauthor_uid=29696595)1,2, [He Q](https://www.ncbi.nlm.nih.gov/pubmed/?term=He%20Q%5BAuthor%5D&cauthor=true&cauthor_uid=29696595)3, [Brevers D](https://www.ncbi.nlm.nih.gov/pubmed/?term=Brevers%20D%5BAuthor%5D&cauthor=true&cauthor_uid=29696595)4, [Bechara A](https://www.ncbi.nlm.nih.gov/pubmed/?term=Bechara%20A%5BAuthor%5D&cauthor=true&cauthor_uid=29696595)5.

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### Abstract

Addiction-like symptoms in relation to excessive and compulsive social media use are common in the general population. Because they can lead to various adverse effects, there is a growing need to understand the brain systems and processes that are involved in potential social media addiction. We focus on the morphology of the posterior subdivision of the insular cortex (i.e., the insula), because it has been shown to be instrumental to supporting the maintenance of substance addictions and problematic behaviors. Assuming that social media addiction shares neural similarities with more established ones and consistent with evidence from the neuroeconomics domain, we further examine one possible reason for this association-namely that insular morphology influences one's delay discounting and that this delay discounting contributes to exaggerated preference for immediate social media rewards and consequent addiction-like symptoms. Based on voxel-based morphometry techniques applied to MRI scans of 32 social media users, we show that the gray matter volumes of the bilateral posterior insula are negatively associated with social media addiction symptoms. We further show that this association is mediated by delay discounting. This provides initial evidence that insular morphology can be associated with potential social media addiction, in part, through its contribution to poor foresight and impulsivity as captured by delay discounting.