

What is being studied as mindfulness meditation?

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In their recent Review (The neuroscience of mindfulness meditation. *Nat. Rev. Neurosci.* **16**, 213–225 (2015))¹, Tang, Hölzel and Posner present an admirable overview of the neuroscience of mindfulness. Their critique of cross-sectional studies raises an important point: practitioners could have “pre-existing differences ... which might be linked to their interest in meditation, personality or temperament.” This highlights a notable confound in the neuroscience of mindfulness literature: research designs rarely distinguish intentional mindfulness meditation from a more intrinsic, dispositional mindfulness. Importantly, the latter has been found in the psychology

literature to be protective against psychological distress² — even for those without formal mindfulness training.

Disambiguating these two types of mindfulness will be important for bridging the gap between the neuroscientific and psychological literature, an integration that others have noted to be important³. Furthermore, decoupling the neural mechanisms underlying dispositional mindfulness from those underlying deliberate mindfulness will not only yield a more accurate view of the distinct neural correlates but also elucidate for whom mindfulness is most effective as a clinical intervention. This new knowledge could also

facilitate new treatments aimed at improving wellbeing through increases in dispositional mindfulness in those unwilling to engage in formal mindfulness meditation.

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Competing interests statement

The authors declare no competing interests