

Britta Biedermann¹ | Peter de Lissa¹ | Yatin Mahajan² | Vince Polito¹ | Nicholas Badcock¹
| Lena Quinto³ | Michael Connors³ | Linda Larsen¹ | Greg Savage¹ | Genevieve
McArthur¹ |

1 | Macquarie University, Sydney, Australia 2 | University of Western Sydney, Australia 3 | University
of Sydney, Australia

A recent meta-analysis suggests that meditation can improve attention in healthy adults (Sedlmeier et al., 2012). It can therefore be asked if meditation might be useful for improving attentive processes in people, who experience attention deficits. For example, some people, who suffered a stroke, show language impairments that stem partly from pre-attentive (very early) auditory attention deficits (e.g., Murray, 1999; Allen, Martin & Martin, 2012).

As a first step towards testing this idea, we investigated the association between meditation and early auditory attention processes in healthy adults with and without meditation experience. 12 long-term meditators from the Sydney Zen Centre offered their time and participated in a 'listening-to-sound' experiment, while they either meditated or performed a non-meditative mental task. In both conditions, we captured their brain responses to sounds (in form of event related potentials (ERPs)). The same tasks were carried out with 14 novice meditators. We found differences in brain responses associated with early auditory attention processes between these two groups. As a second step, we investigated if novices can be trained to 'attend' like long-term meditators. We recently completed an 8-week-meditation training with 19 healthy novices led by Roshi Gillian Coote. Results of this training study will be discussed.

Allen, Martin & Martin (2012). Relations between Short-term Memory Deficits, Semantic Processing, and Executive Function. *Aphasiology*, 26(3-4): 428–461.

Murray (1999). Review attention and aphasia: Theory, research and clinical implications. *Aphasiology*, 13(2), 91-111.

Sedlmeier, P., Eberth, J., Schwarz, M., Zimmermann, D., Haarig, F., Jaeger, S., & Kunze, S. (2012). The psychological effects of meditation: A meta-analysis. *Psychological bulletin*, 138(6), 1139.