Magnitude of the attentional blink depends on meditative state

Marieke K. van Vugt1, Heleen Slagter2

1 Dept of Artificial Intelligence, University of Groningen, The Netherlands
2 Dept of Psychology, University of Amsterdam, The Netherlands

Introduction
- Attentional blink: information processing deficit, wherein a second target in a rapid stream of events is often missed
- 3-month intensive meditation retreat reduces attentional blink (Slagter et al., 2007)
- Is this a state or a trait effect?
- Meditation is thought to improve attentional flexibility (Greenberg et al., 2012) and reduce "holding onto things"
- Blink is due to over-investment of resources in stimulus processing (e.g., Taatgen et al., 2009)
- Could the attentional blink effect depend on the meditative state?

Task
- RSVP task (Raymond et al., 1992)
- Stimuli presented for 30 ms, 34 ms ISI
- Two target digits 2–9 (T1 & T2)
- Lag between T1 and T2: 2, 4, 8 items

State-dependent reduction in attentional blink

Meditation = type of emotional and attentional training

OM meditation is associated with a smaller AB than FA meditation, at least for very experienced meditators

Discussion

- Meditation is thought to improve attentional flexibility (Greenberg et al., 2012) and reduce "holding onto things"
- Blink is due to over-investment of resources in stimulus processing (e.g., Taatgen et al., 2009)
- Could the attentional blink effect depend on the meditative state?

Hypothesis
- OM meditation leads to a reduced attentional blink compared to FA meditation

Design
- Participants recruited through Buddhist meditation centers around Groningen and Amsterdam
- At least 2 yrs meditation experience; daily practice
- Randomized to FA, OM or OM (see below)

OM meditation 4 min.
90 trials while meditating
OM meditation 2 min.
90 trials while meditating
FA meditation 4 min.
90 trials while meditating
FA meditation 2 min.
90 trials while meditating
randomized order

References