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Contemplations into respiration: effects of breathing and meditative movement on body and mind

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Citation

Gerritsen, R. J. S. (2023, December 13). *Contemplations into respiration: effects of breathing and meditative movement on body and mind*. Retrieved from <https://hdl.handle.net/1887/3672234>

Version: Publisher's Version

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Propositions that belong to the dissertation:

**Contemplations into Respiration:
Effects of breathing and meditative moment on body and mind**

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1. Slow breathing exercises with extended exhalations increase parasympathetic activity levels acutely; they relax.
2. Some resting state heart rate variability measures (HRV) are valid indicators of tonic vagal tone, but they are only reliable in specific contexts.
3. There is an association between vagal tone HRV and cognitive (control) functioning, but this relationship is correlational.
4. Respiratory vagal nerve stimulation (rVNS) is a promising construct, by describing the relationship between respiratory patterns, the autonomic nervous system and cognition.
5. Tai Chi Chuan is an easy way to increase functional balance in aging populations. However, when the aim is cognitive enhancement, its (short term) effectiveness is doubtful.
6. Much like HRV, BRV, or breath rate variability, could be an informative marker of the physical and mental flexibility of human beings.
7. Bayesian statistics is an invaluable scientific tool in truth finding, by virtue of evidence loading, and should completely replace classical statistics.
8. Sample size matters.
9. In contemplative science, questions and hypotheses tend to mingle with hopes and beliefs.
10. Cognitive science should start thinking outside of the black box.
11. By machine learning various autonomic state markers can be pattern recognized into the individual *autonome*, making personalized approaches (mental) health possible.
12. Artificial general intelligence is only possible when digital systems breathe.