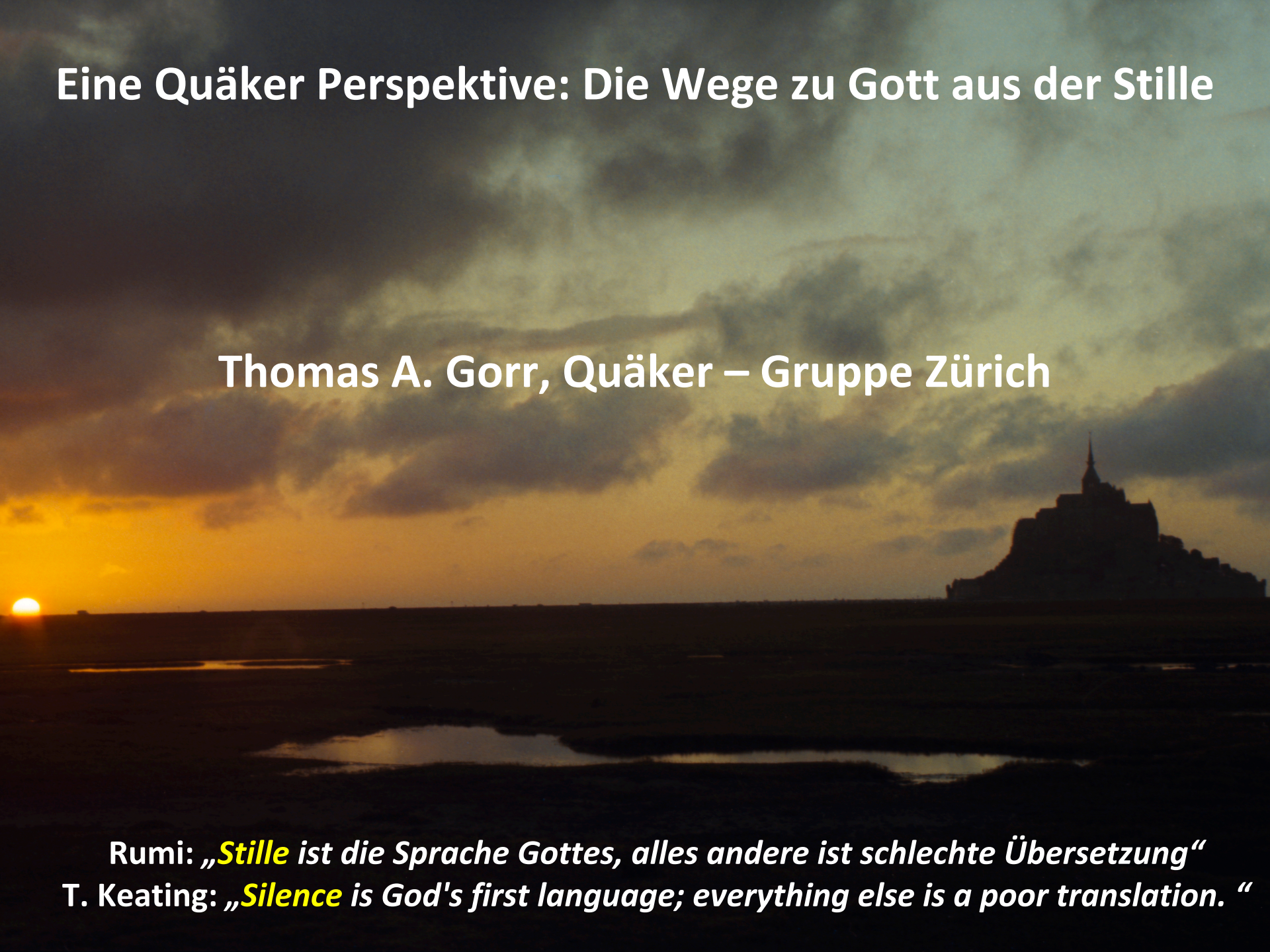
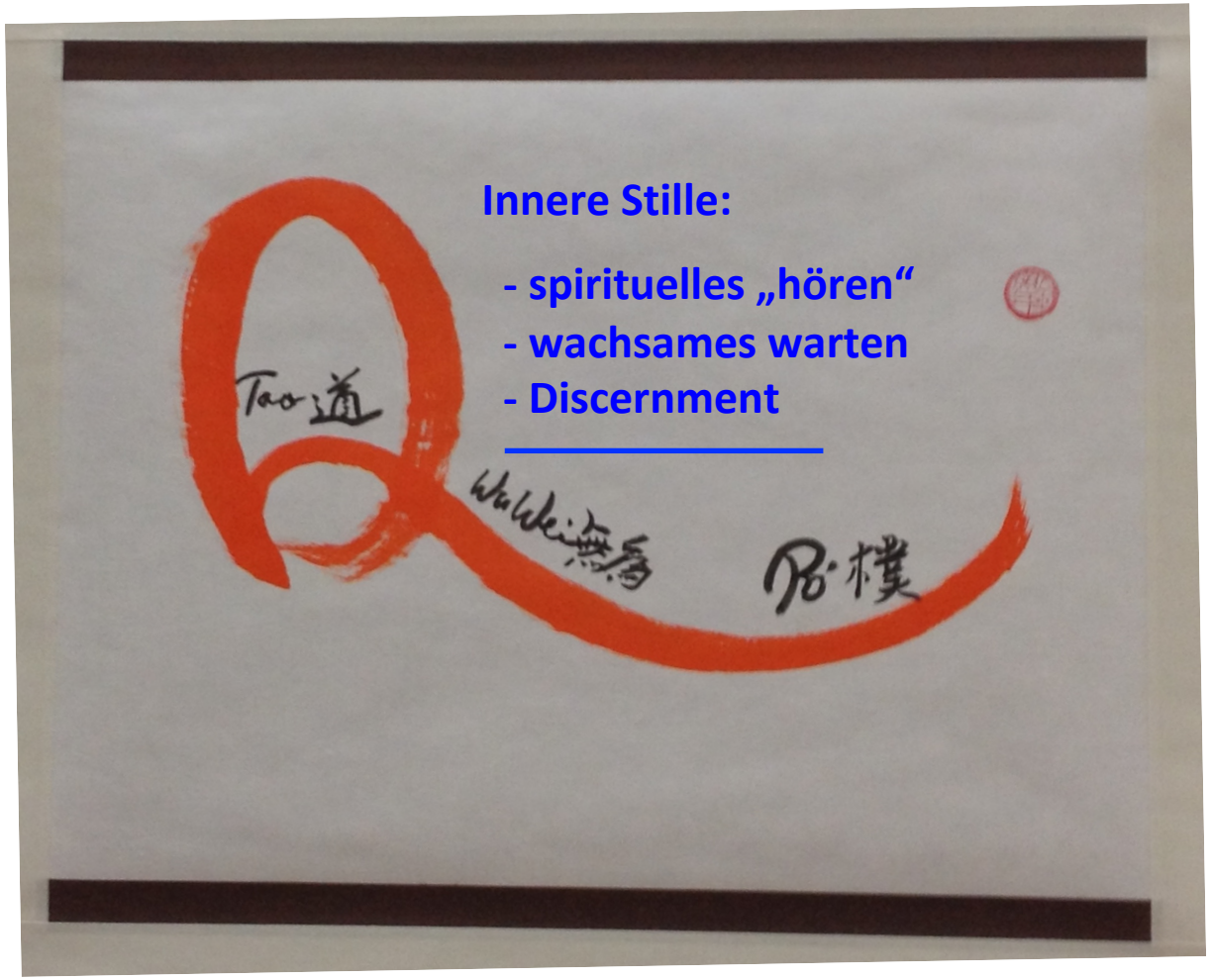
Eine Quäker Perspektive: Die Wege zu Gott aus der Stille

Thomas A. Gorr, Quäker – Gruppe Zürich



Rumi: *„Stille ist die Sprache Gottes, alles andere ist schlechte Übersetzung“*
T. Keating: *„Silence is God's first language; everything else is a poor translation. “*

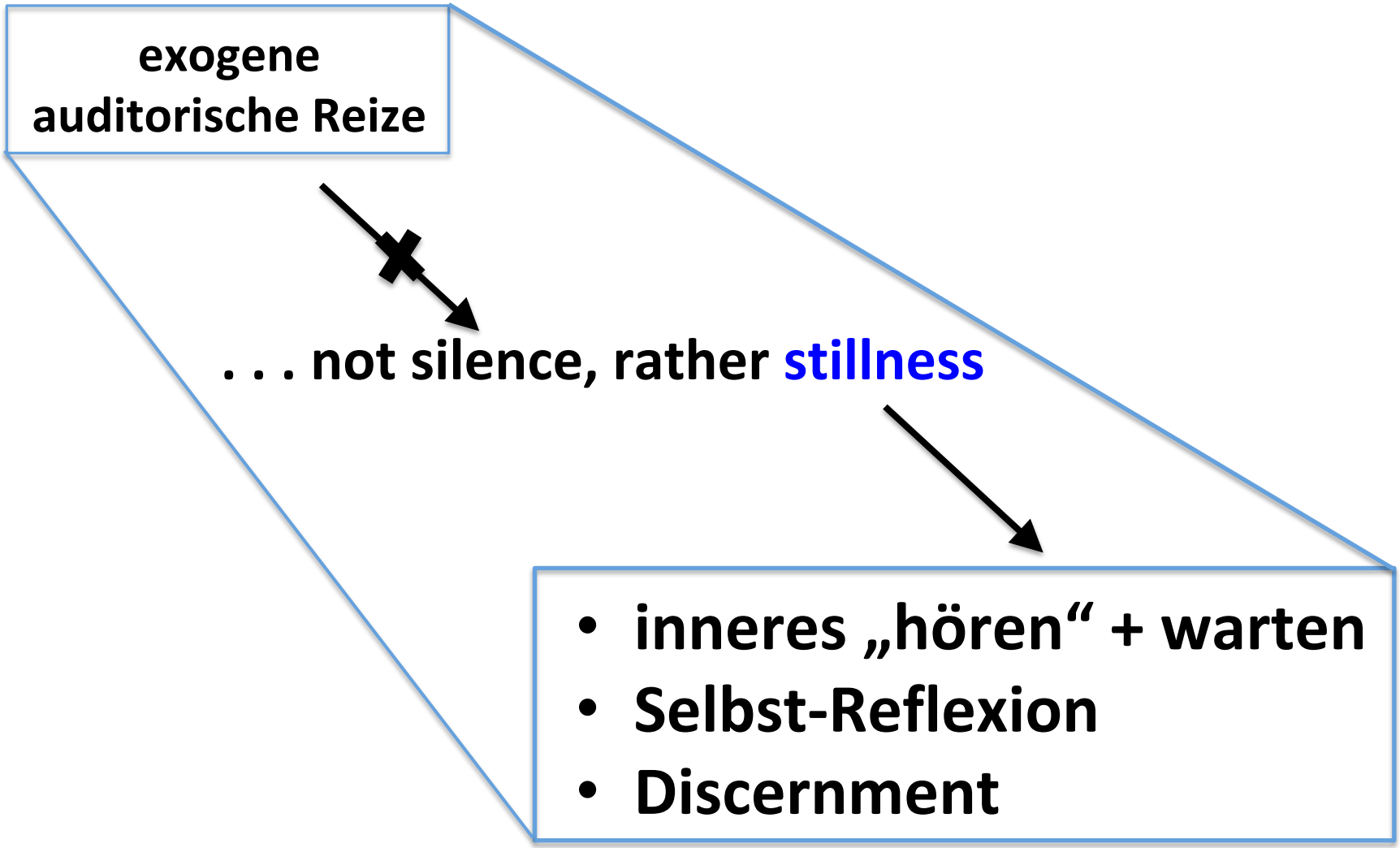
In Stille erfahren wir die Verheissung Gottes: Parallelen zwischen Quäkertum und fernöstlichem Taoismus



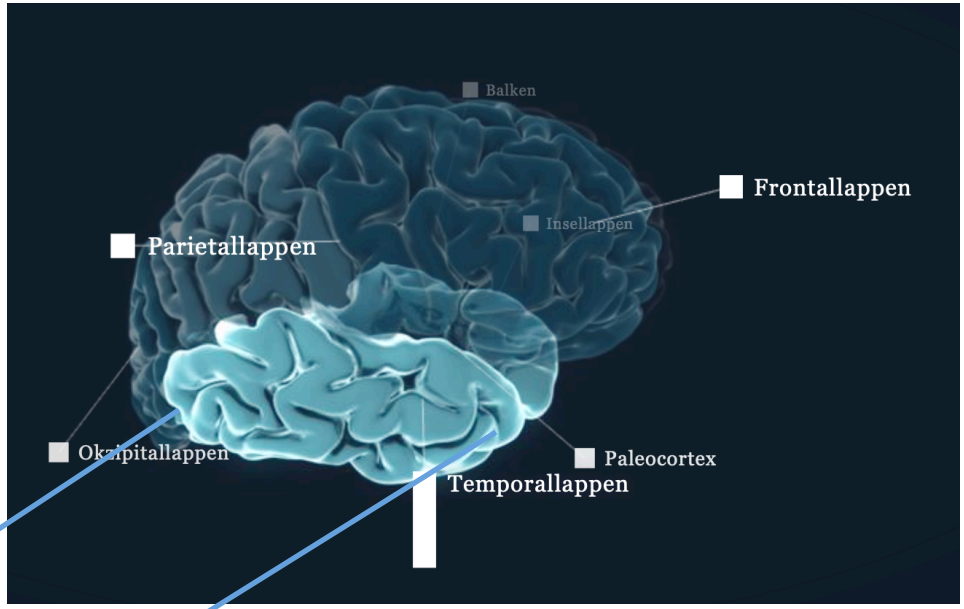
Quelle: ***Cary Vorlesung, Cho-Nyon Kim – Deutsche Quäker JV, 2018***
https://quaeker.org/wp-content/uploads/2018/11/Cary2018web.pdf

Stille als Verkaufsschlager: „Seele baumeln lassen“

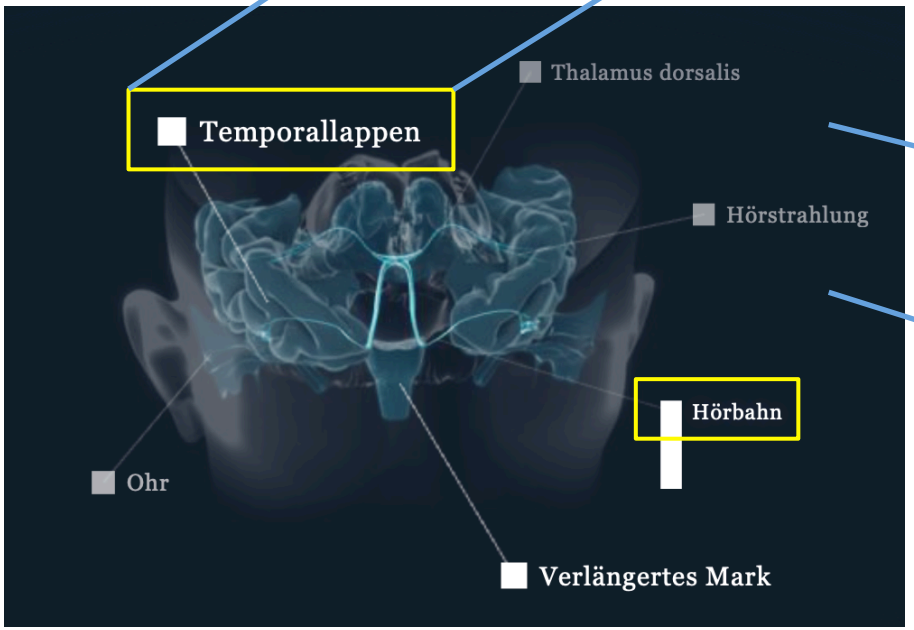
Stille für Quäker bedeutet . . .

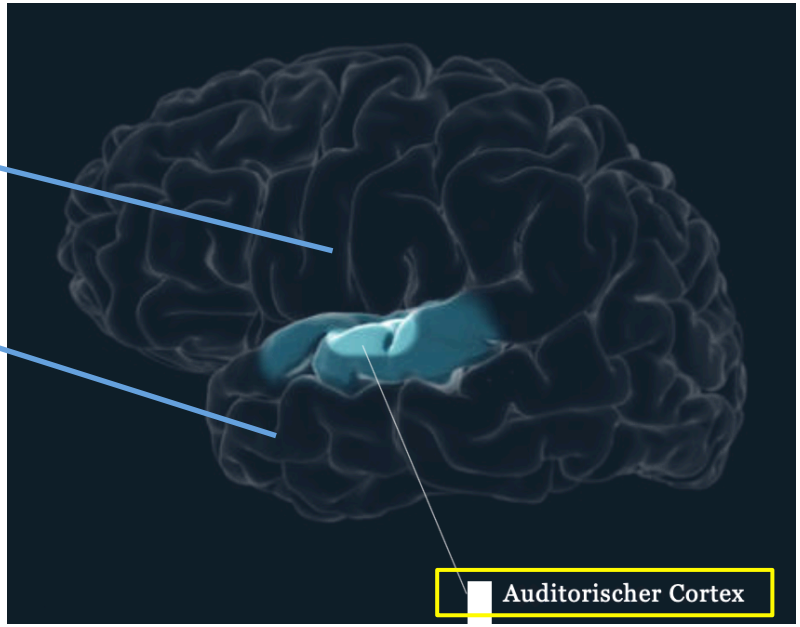


Wie wirkt Stille in uns – physiologisch?



Quelle:
3D-Das Gehirn





Die Abwesenheit von Geräuschen, Tönen: Stille als Kontrollzustand

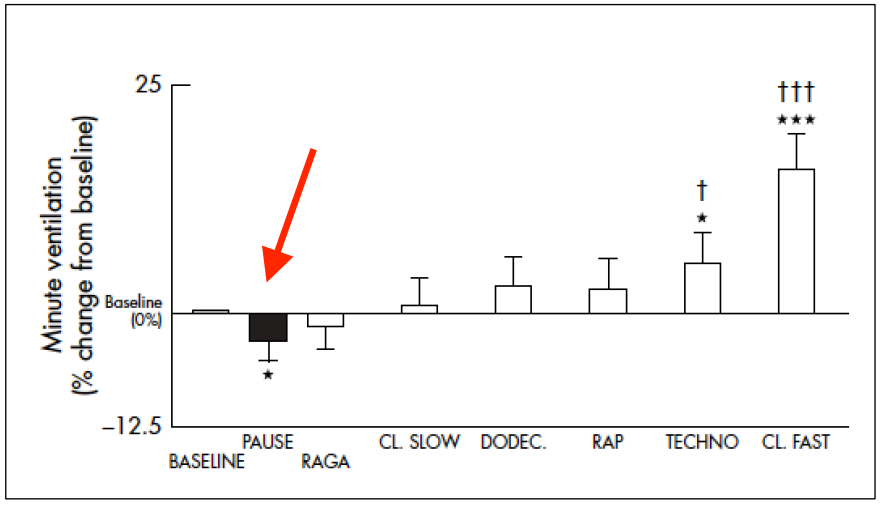
CARDIOVASCULAR MEDICINE

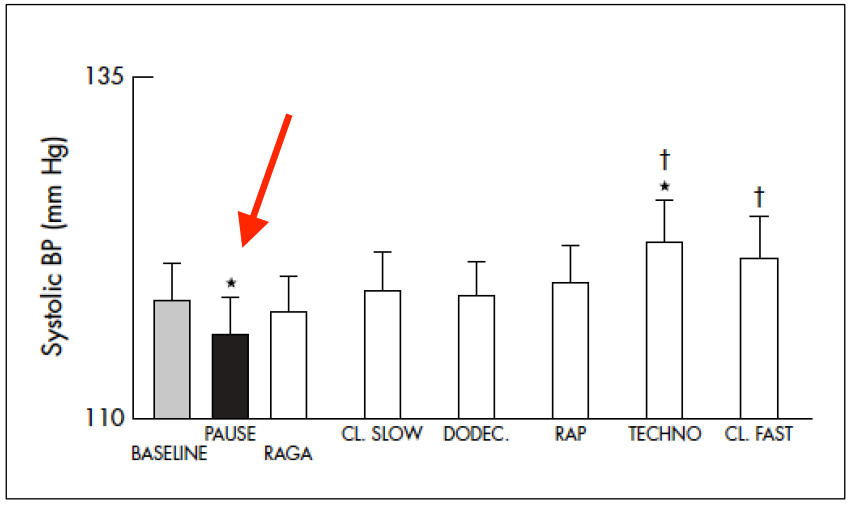
Cardiovascular, cerebrovascular, and respiratory changes induced by different types of music in musicians and non-musicians: the importance of silence

L Bernardi, C Porta, P Sleight

Heart 2006;**92**:445–452. doi: 10.1136/hrt.2005.064600

- Measurement of cardiovascular and respiratory variables while patients listened to music.
- 12 practising musicians and 12 age matched controls.
- Interventions: After a five minute baseline, presentation in random order of six different music styles (first for a two minute, then for a four minute track), with a **randomly inserted two minute pause, in either sequence**.





➢ The pause reduced heart rate, blood pressure, and minute ventilation, even below baseline

Die Neurobiologische Grundlage für unsere Wahrnehmung von Stille

Nonoverlapping Sets of Synapses Drive On Responses and Off Responses in Auditory Cortex

Ben Scholl,[1] Xiang Gao,[1] and Michael Wehr[1,*]
[1]Institute of Neuroscience, Department of Psychology, University of Oregon, Eugene, OR 97403, USA
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DOI 10.1016/j.neuron.2010.01.020

Neuron *65*, 412–421, February 11, 2010 ©2010 Elsevier Inc.

- Stille wird gemeinhin als fehlender auditorischer Reiz (fehlendes Signal) verstanden
- Aber: im auditorischen Kortex (AK) von Mäusen fanden Scholl und Kollegen (oben) ein separates Netzwerk von Neuronen, die feuern sobald Stille beginnt!
- Verallgemeinernd kann man daraus den Schluss ziehen das der AK sowohl auf Beginn+Wahrnehmung sensorischer Signale (ON responses) wie auch auf deren Beendigung (OFF responses) reagiert
- ON und OFF responses sind durch separate neuronale AK Synapsen repräsentiert
- „When sound suddenly stops, that's an event just as surely as when a sound starts."

➢ Wahrnehmung von Stille beruht auf der Aktivität eigener neuronaler Schaltkreise im AK und ist eben nicht nur das Fehlen eines auditorischen Reizes. Das heisst: Stille bedeutet kein „ausschalten" neuronal-kognitiver Aktivitäten, ganz im Gegenteil.

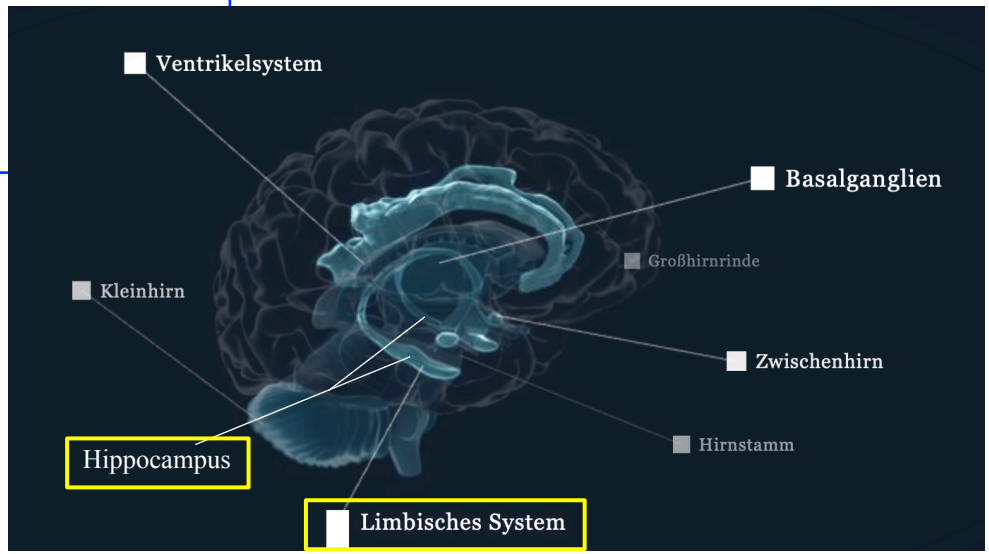
Neurogenese getriggert durch wiederholte Stille

Brain Struct Funct (2015) 220:1221–1228
DOI 10.1007/s00429-013-0679-3

SHORT COMMUNICATION

Is silence golden? Effects of auditory stimuli and their absence on adult hippocampal neurogenesis

Imke Kirste · Zeina Nicola · Golo Kronenberg · Tara L. Walker · Robert C. Liu · Gerd Kempermann



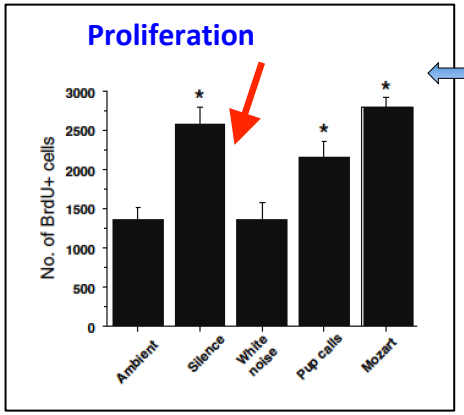
We used ambient noise in the animal facility (animal house noise) as baseline and exposed our mice to four different conditions:

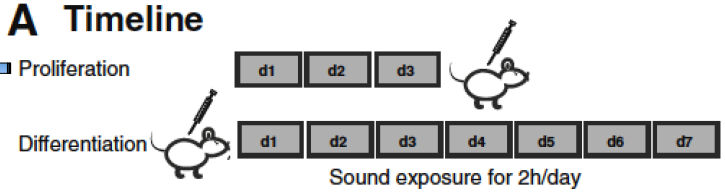
(1) white noise as unstructured auditory stimulus;

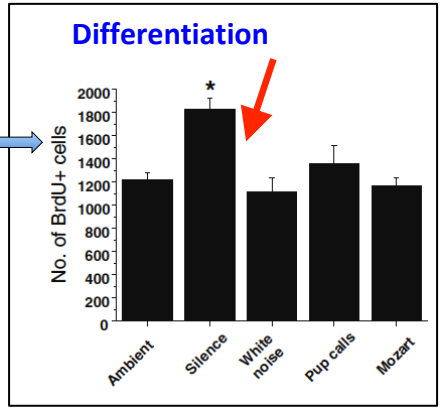
(2) mouse pup calls as structured stimulus - for mice common + relevant;

(3) Mozart piano music as a structured stimulus, unknown + presumably irrelevant to mice; and

(4) silence.







- Two hours of silence per day prompted cell development in the hippocampus, the brain region related to the formation of memory

Stille versetzt das Gehirn in einen energetischen „baseline state“

A default mode of brain function

676–682 | PNAS | January 16, 2001 | vol. 98 | no. 2

Marcus E. Raichle*†, Ann Mary MacLeod*, Abraham Z. Snyder*, William J. Powers‡, Debra A. Gusnard*§, and Gordon L. Shulman‡

*Mallinckrodt Institute of Radiology and Departments of ‡Neurology and §Psychiatry, Washington University School of Medicine, St. Louis, MO 63110

- Menschliches Gehirn: 2% KG **aber** 20% des O_2-Bedarfs (Ruhe)
- PET scan erfasst lokale Änderungen der Durchblutungsrate bzw. O_2-Extraktionsrate (OEF)

- Studie von Raichle und Kollegen (oben) beschrieb zum 1. Mal das bei ruhig liegenden Probanden im wachen Zustand mit geschlossenen Augen eine sehr homogene OEF über die gesamte Hirntiefe vorliegt.

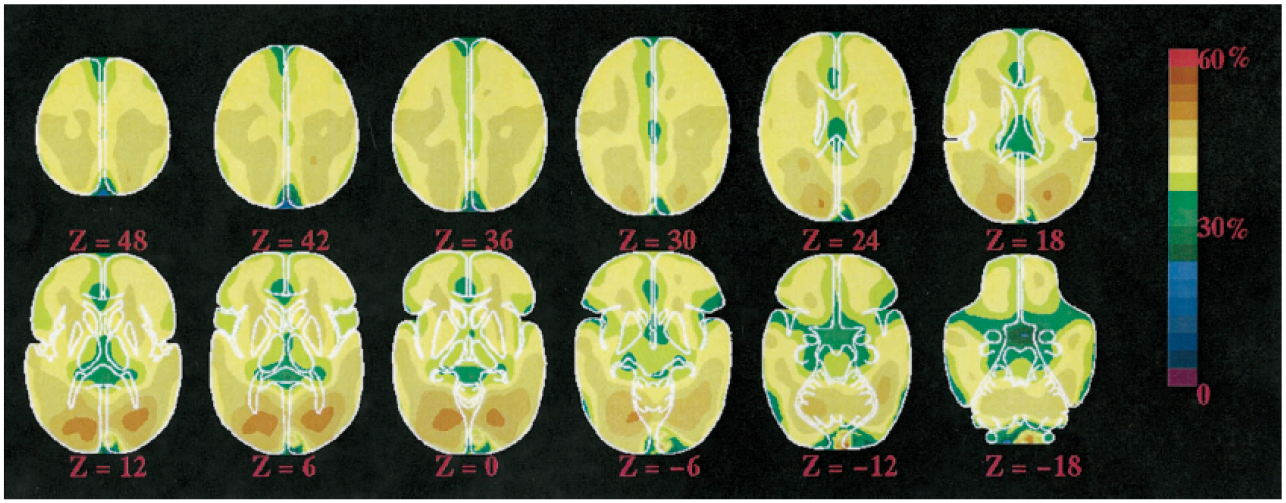


Fig. 4. Maps of the fraction of oxygen extracted by the brain from arterial blood (oxygen extraction fraction or OEF expressed as a percentage of the available oxygen delivered to the brain). The data come from 19 normal adults (group I, Table 1) resting quietly but awake with their eyes closed. The data were obtained with PET. Despite an almost 4-fold difference in blood flow and oxygen consumption between gray and white matter, the OEF is relatively uniform, emphasizing the close matching of blood flow and oxygen consumption in the resting, awake brain. Areas of increased OEF can be seen in the occipital regions bilaterally (see text for discussion).

➢ energetischer Grundzustand (baseline state) durch „innere Ruhe“ erreicht

Derzeitige Neuropsychologische Modelle zu meditativen Schaltkreisen (OM = open monitoring meditation)

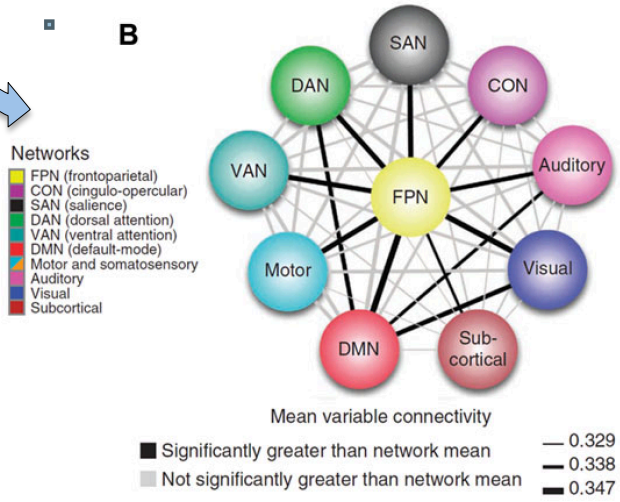
ANNALS OF THE NEW YORK ACADEMY OF SCIENCES
Issue: *Advances in Meditation Research*

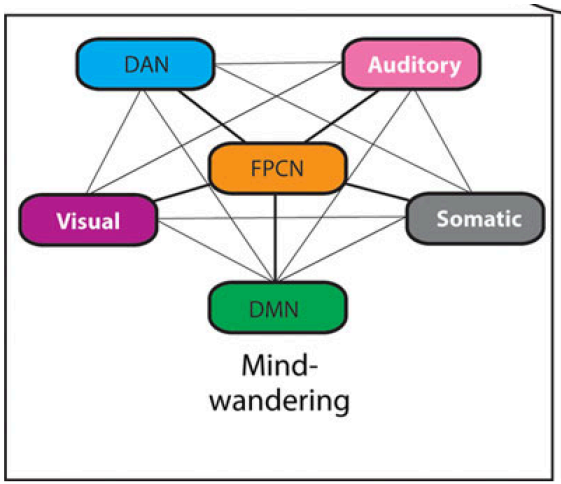
The brain on silent: mind wandering, mindful awareness, and states of mental tranquility

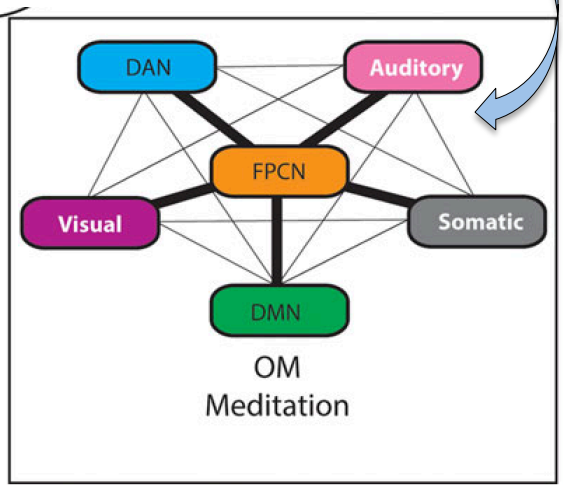
David R. Vago[1] and Fadel Zeidan[2]

doi: 10.1111/nyas.13171
Ann. N.Y. Acad. Sci. 1373 (2016) 96–113 © 2016 New York Academy of Sciences.

- Resting state = baseline state of mind in quietly awake individuals and in the context of no particular task
- To date, at least 10 organized resting-state networks (RSNs) have been identified during rest, including the default mode network (DMN).
- (Buddhist contemplation practice): OM + calm training → increased activation of attentional networks and flexible switching between networks. Mind wandering has less connectivity across networks.








ÜBER DIE STILLE
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FINDEST DU
. . .
DAS VON GOTT IN JEDEM VON UNS
Alter Quäker Friedhof, UK