



Environmental Support for Restoration and Restoration Skills Training

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Agenda for Today

- I Context: the Linnaean Collaboration
- II Familiarize with restorative environments theory
- III Place and headspace for rest on campus
- IV Teaching and learning restoration skills

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The Research in Context



The Linnaean Collaboration in Studies of Nature, Health, and Sustainability



Image: Barni uppsala.se

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The Research in Context



The Linnaean Collaboration in Studies of Nature, Health, and Sustainability



1739: Founder of the Royal Swedish Academy of Sciences
1741-1778: Professor of Medicine and Botany and Garden Director, Uppsala University

Image: historiesajten.se, sedelmynnt.se

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The Research in Context



The Linnaean Collaboration in Studies of Nature, Health, and Sustainability



Image: Uppsala University

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The Research in Context



The Linnaean Collaboration in Studies of Nature, Health, and Sustainability



Image: Freddie Lymeus

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The Research in Context



The Linnaean Collaboration in Studies of Nature, Health, and Sustainability

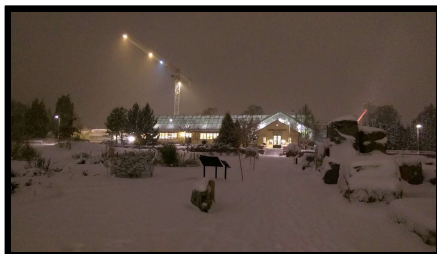


Image: Freddie Lymeus

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The Research in Context



The Linnaean Collaboration in Studies of Nature, Health, and Sustainability

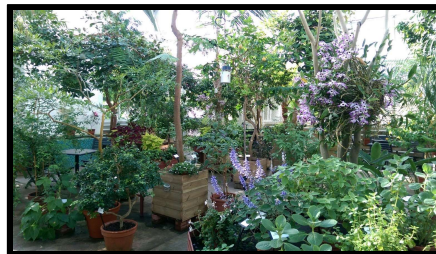


Image: Freddie Lymeus

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Restorative Environments Theory

How come modern, urban people seek nature experience?

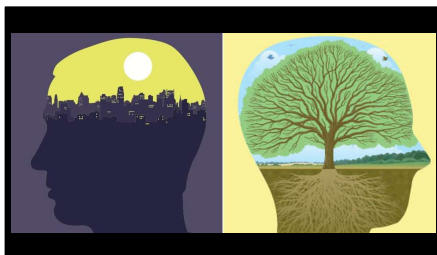


Image: pinterest.com/bagaskarabahasyar

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Restorative Environments Theory

"Obviously cities have great appeal because of their variety, eventfulness, possibility of choice, and the stimulation of an intense atmosphere that many individuals find a desirable background to their lives..."

But..."

Milgram (1970)

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Restorative Environments Theory

"It is a scientific fact that the occasional contemplation of natural scenes of an impressive character, particularly if this contemplation occurs in connection with relief from ordinary cares, change of air and change of habits is favorable to the health and vigor..."

...The want of such occasional recreation where men and women are habitually pressed by their business or household cares often results in . . . mental and nervous excitability, moroseness, melancholy or irascibility, incapacitating the subject for the proper exercise of the intellectual and moral forces"

Frederick Law Olmsted (1865)

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Restorative Environments Theory

How come modern, urban people seek nature experience?

Hartig & Staats, 2006



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Restorative Environments Theory

How come modern, urban people seek nature experience?

Hartig & Staats, 2006

Environment	Attentional Fatigue	No Attentional Fatigue
Forest	~6.5	~5.5
City	~3.5	~4.5

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Restorative Environments Theory

How come modern, urban people seek nature experience?

Kaplan & Kaplan, 1989, 1995

- being away
- soft fascination
- coherence
- extent

Image: Unknown

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Restorative Environments Theory

How come modern, urban people seek nature experience?

Image: Unknown

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Restorative Environments Theory

How come modern, urban people seek nature experience?

Grassini et al., 2019

Time

1200 ms

1200 ms

1200 ms

Subjective rating

0.5-4 Hz Delta

4-8 Hz Theta

8-11 Hz Low Alpha

11-13 Hz High Alpha

13-29 Beta

29-45 Low Gamma

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Restorative Environments Theory

How come modern, urban people seek nature experience?

Kaplan & Kaplan, 1989, 1995

- being away
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- extent

Image: Unknown

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Restorative Environments Theory

Restoration:
The replenishment of an adaptive resource that has become depleted in efforts to meet demands, so that the associated functional capabilities are reinstated

Stevenson et al., 2018

T1

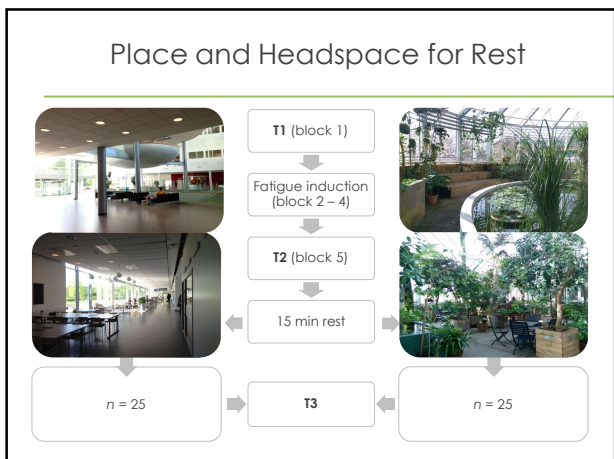
T2

T3

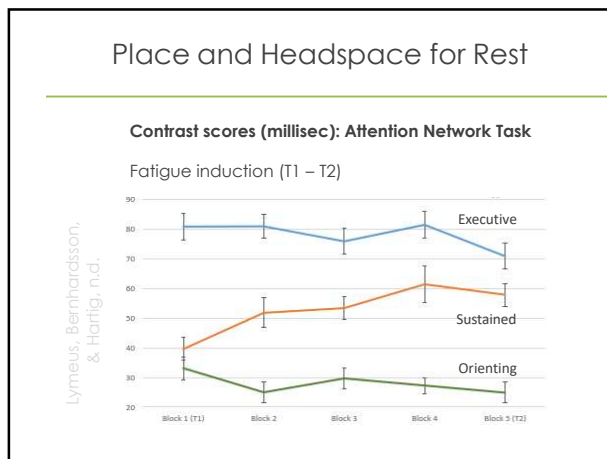
Fatigue-induction phase

Restoration phase

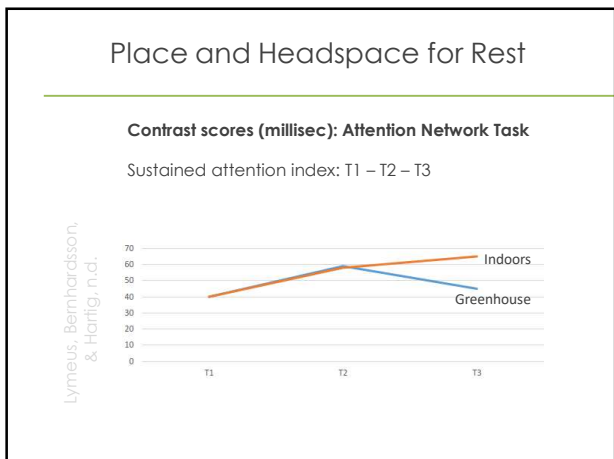
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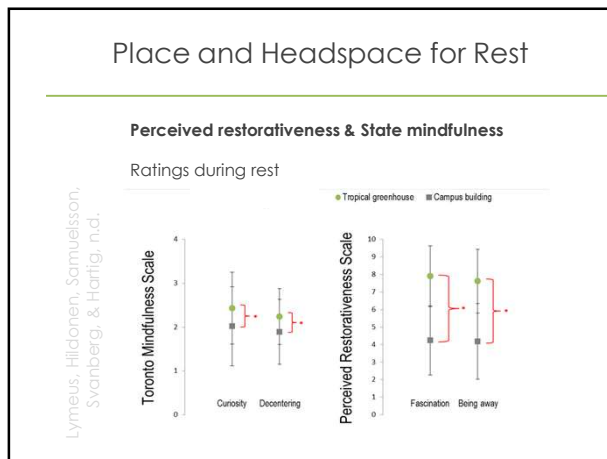
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Restoration Skills Training (ReST)

Starting with the established MBSR course, we developed ReST across four iterations, 2013 - 2017



Image: Freddie Lymeus

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Restoration Skills Training (ReST)

In each iteration, we compared ReST to conventional mindfulness training given indoors



Image: Freddie Lymeus

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Restoration Skills Training (ReST)

- Aims:**
- 1) an easier introduction to mindfulness
 - 2) as efficacious as conventional mindfulness training

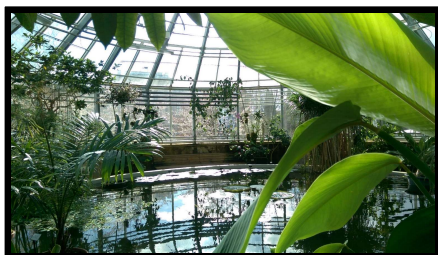
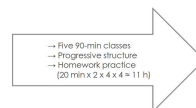


Image: Freddie Lymeus

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Restoration Skills Training (ReST)

Engagement with the practice



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Restoration Skills Training (ReST)

Engagement with the practice

Lymeus, Lindberg, & Hartig, 2019

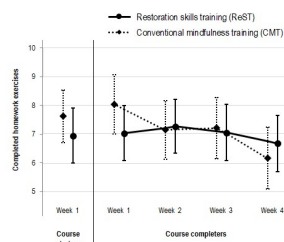
	Completers	Drop-outs
ReST	61	7 (10%)
CMT	52	19 (27%)

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Restoration Skills Training (ReST)

Engagement with the practice

Lymeus, Lindberg, & Hartig, 2019



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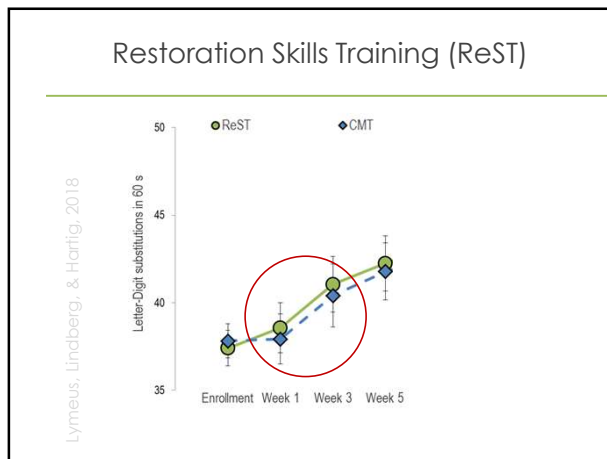
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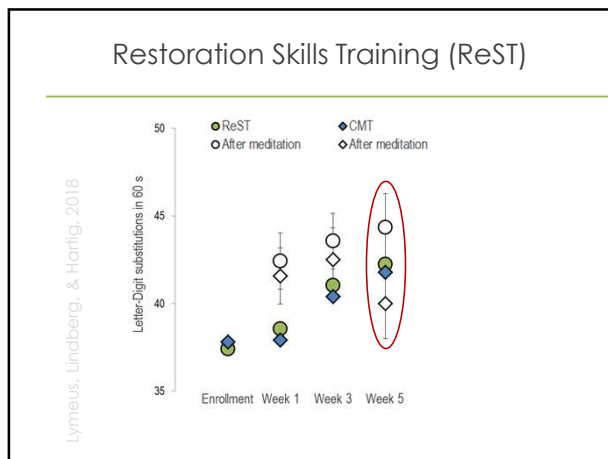
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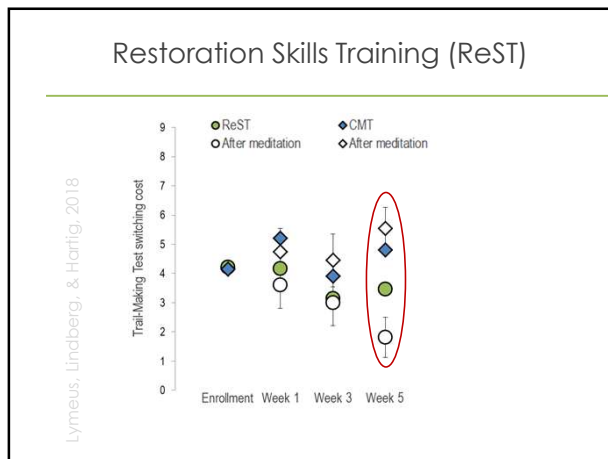
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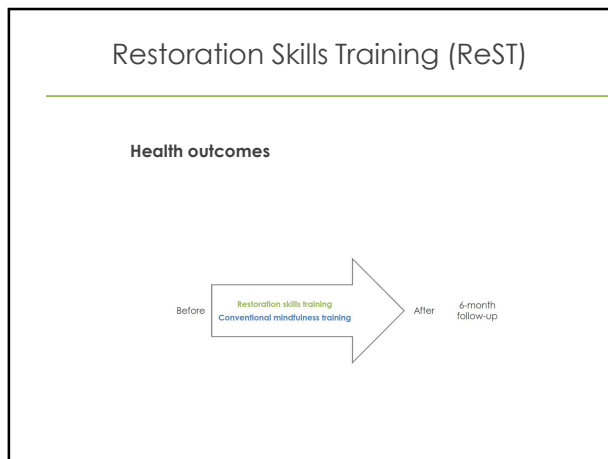
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Restoration Skills Training (ReST)

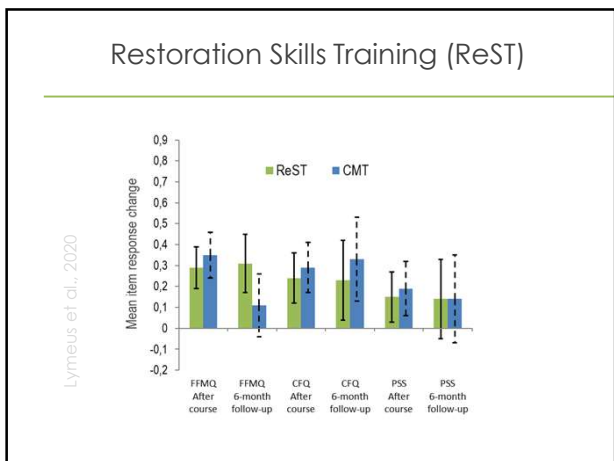
Attention, conclusions

- ReST trains restoration skills over time
- ReST improves general attention capabilities without incurring effort

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Restoration Skills Training (ReST)

Health outcomes, conclusions

Less effortful and more acceptable **ReST** training is no less beneficial than **CMT**

ReST and **CMT** are both attended by sustained improvements in attentional functioning

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Restoration Skills Training (ReST)

General conclusions

Trainable personal skills can enhance restoration

The setting matters in meditation

ReST is a viable alternative for beginners with stress or concentration problems

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Thanks for your attention!

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