



Affordances of the Natural Environment

BMOE5001

D. Leonard 2026



How do these theories support an outdoor lifestyle?

Attention Restoration Theory (Kaplan and Kaplan, 1989)

Self Determination Theory (Deci and Ryan, 1985)

Stress Reduction Theory (Ulrich, 1991)

Stress Reduction Theory

This theory states that **looking at scenery containing natural elements like greenery or water creates positive emotions and feelings like interest, pleasure, and calm, and has a restorative effect, easing our state of alert following a stressful situation.** Our response is then improved rapidly and spontaneously⁹.



Attention Restoration Theory:

**‘Passive nature exposure
promotes positive changes in
attention, memory and mood.’**

Norwood, et al. 2019

**‘Primary focus on being in, and in
a relationship with, nature.’**

Segal, et al. 2021

**Contact with nature, a ‘major
health determinant.’**

Kuo, 2015



Key Ingredients of Attention Restoration Theory

- **Extent:** An environment must be at least somewhat familiar and coherent in order for it to be restorative, we need to be immersed within it without feeling threatened or uncomfortable.
- **Compatibility:** To be restorative, an environment must be one in which the individual chooses to be out of intrinsic motivation and personal preference. If you are there for extrinsic or external reasons, you are not likely to experience restoration. (SDT)
- Kaplan, and Kaplan, (1989) define nature as any green space, from vast wilderness settings to parks in urban areas. They suggest that contact with nature can restore the neural inhibitory system that allows the brain to block competing stimuli that cause mental fatigue, in other words calms the brain! For this to occur an individual must be immersed in their surroundings, away from their normal setting. The soft fascination of nature allows the attentional system to rest and restore, overcoming mental fatigue.

Key Ingredients of Attention Restoration Theory

- **Asserts that natural environments are ideal places to restore diminished attentional capacity.**
- **Directed attention plays an important role in human information processing; its fatigue, in turn, has far-reaching consequences**
- **Effortless Attention (Fascination) is believed to be restorative.** Something that is fascinating is a stimulus that initiates the use of involuntary attention, or attention that requires no effort.
- **Nature's ability to moderately hold one's attention while leaving sufficient headspace for reflection permits the "essential mental housekeeping" (Kaplan 1995)**
- **Soft and hard fascination are both perceived as restorative – Walking in nature(soft) and television (hard) are examples. Hard Fascination has an entertainment value, relieves boredom and is easily available. (wider implications; physical, social?). Soft fascination features reflection and allows sense-making (mental bandwidth)**

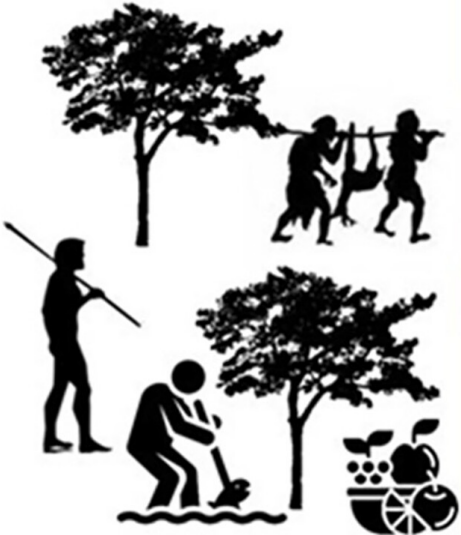
(Basu, Duvall and Kaplan (2019) On Moodl

Modern Lifestyles and Attention Fatigue

What are the challenges we face in terms of attention restoration

What are the implications on our physiological and psychological health?

The evolution of human work



Cognitive and behavioral mechanisms to support work



New ways of work



Emergence of evolutionary mismatches in work



Consequences of evolutionary mismatches in work



The Challenge – Evolutionary Mismatch Theory



What do we mean by affordances?

The term affordance refers to the perceived properties of the thing or place in relation to the user. A chair affords ("is for") support, and, therefore, affords sitting.

What sort of things constitute an affordance in the natural environment when we are considering the human nature relationship?

Comparison of environments





Self Determination Theory (SDT) What and Why?

- Important to understanding 'why' people would or wouldn't engage (and persist) with an outdoor lifestyle from gardening to park runs to walking the dog.
- Because you are told 'it's good for you' isn't reason enough!
- Any external motivation needs to be congruent with internal values and beliefs. To become intrinsically motivated participation needs to fulfil **basic psychological needs**:

Competence (right level of challenge)

Autonomy (True to self, control)

Relatedness (belonging)

- Results are longer participation (persistence) and greater success. When psychological needs are satisfied the result is enhanced self-motivation and mental health and when thwarted lead to diminished motivation and well-being. (Ryan and Deci, 2000)
- Considerable research on SDT in sport. Relevant to promoting outdoor lifestyles when we look for the potential for long term or sustained behaviour change. Links to 'Choice Theory' (Glasser) and 'Growth Mindset' (Dweck), both used heavily in OAE.

Useful site for research: [Centre for Self Determination Theory](#) Lots of videos that explore SDT but also touch on nature connection, restoration and general health and wellbeing.

Perception is key!



[Article by UK Climbing on Women's safety outdoors](#)
(March 2021)

Salutogenesis

Aaron Antonovsky:
American-Israeli medical
sociologist 1900's

Opposite to the
'Pathogenic' model in
traditional health care
(Patho = Suffering)

In modern society we 'treat'
illness rather than
'promoting' wellness

Links to a hedonistic
approach, live for today!

Implies health is a binary
construct, healthy or not
healthy. Only when we are
not healthy do we engage
with health services. Are we
healthy, Yes/No?

Salutogenics approach from
a promotion of positive
health through our lifestyle
and environment as a
whole.

Salus (Health; latin); Genesis
(Beginning, Hebrew)

What causes health, what
creates or begins health as
opposed to what causes
disease and how we can
treat disease.

Works alongside
pathogenesis yet far less
research is done into this
side of the coin. Does the
term "symptoms of health"
exist at all?



Assessment 2 – Research Report

Write a report presenting your opinions as to **the efficacy of different outdoor environments and activities as a medium for promoting health and wellbeing**. Use both primary data alongside a breadth of secondary sources of research evidence, to support your opinions.



Structure

- Example assessment on Moodle – use as starting point
- Introduction
- Literature review – Check Moodle and then go broader
- Methodology for research and data analysis – read research methods (Kate's Module)
- Presentation of findings – use different mediums
- Discussion to include primary and secondary data
- Conclusion
- References

Research to do:

Investigate the evidence from Moodle and wider research that supports the assertion that approaches to health that incorporate nature and physical activity are worthwhile and perhaps valid approaches for health services.

Consider how the theories of ART, SRT and SDT contribute to our understanding of why these interventions might work along with other concepts such as Biophilia, Salutogenesis and our brain biochemistry.

Use this to help develop your literature review for your assessment as well as to support the findings of your own research.

Linking concepts and Theories

