

BIBLIOGRAPHIE

Principaux articles de références



The relationship between nature connectedness and happiness: a meta-analysis

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Research suggests that contact with nature can be beneficial, for example leading to improvements in mood, cognition, and health. A distinct but related idea is the personality construct of subjective nature connectedness, a stable individual difference in cognitive, affective, and experiential connection with the natural environment. Subjective nature connectedness is a strong predictor of pro-environmental attitudes and behaviors that may also be positively associated with subjective well-being. This meta-analysis was conducted to examine the relationship between nature connectedness and happiness. Based on 30 samples ($n = 8523$), a fixed-effect meta-analysis found a small but significant effect size ($r = 0.19$). Those who are more connected to nature tended to experience more positive affect, vitality, and life satisfaction compared to those less connected to nature. Publication status, year, average age, and percentage of females in the sample were not significant moderators. Vitality had the strongest relationship with nature connectedness ($r = 0.24$), followed by positive affect ($r = 0.22$) and life satisfaction ($r = 0.17$). In terms of specific nature connectedness measures, associations were the strongest between happiness and inclusion of nature in self ($r = 0.27$), compared to nature relatedness ($r = 0.18$) and connectedness to nature ($r = 0.18$). This research highlights the importance of considering personality when examining the psychological benefits of nature. The results suggest that

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Original Research

Psychological effects of forest environments on healthy adults: Shinrin-yoku (forest-air bathing, walking) as a possible method of stress reduction

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REVIEW

Open Access



Natural environments, nature relatedness and the ecological theater: connecting satellites and sequencing to shinrin-yoku

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Abstract

Recent advances in research concerning the public health value of natural environments have been remarkable. The growing interest in this topic (often housed under terms such as green and/or blue space) has been occurring in parallel with the microbiome revolution and an increased use of remote sensing technology in public health. In the context of biodiversity loss, rapid urbanization, and alarming rates of global non-communicable diseases (many associated with chronic, low-grade inflammation), discussions of natural vis-a-vis built environments are not merely fodder for intellectual curiosity. Here, we argue for increased interdisciplinary collaboration with the aim of better understanding the mechanisms—including aerobiological and epigenetic—that might help explain some of the noted positive health outcomes. It is our contention that some of these mechanisms are related to ecodiversity

Trends in research related to “Shinrin-yoku” (taking in the forest atmosphere or forest bathing) in Japan

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Abstract “Shinrin-yoku”, which can be defined as “taking in the forest atmosphere or forest bathing”, has been receiving increasing attention in Japan in recent years for its capacity to provide relaxation and reduce stress. Since 2004,

Introduction

In a survey conducted by the Ministry of Health, Labour and Welfare of Japan [1], 54.2% of the respondents (32,000

Il existe plus de 150 publications sur la thérapie forestière répertoriées dans PubMed (NCBI, 2019).

Dans une enquête réalisée par le ministère de la Santé, du Travail et du Bien-être du Japon, 54,2% des répondants (32 000 Japonais de plus de 12 ans) ont déclaré que leur niveau de stress était « très élevé » ou « relativement élevé ».

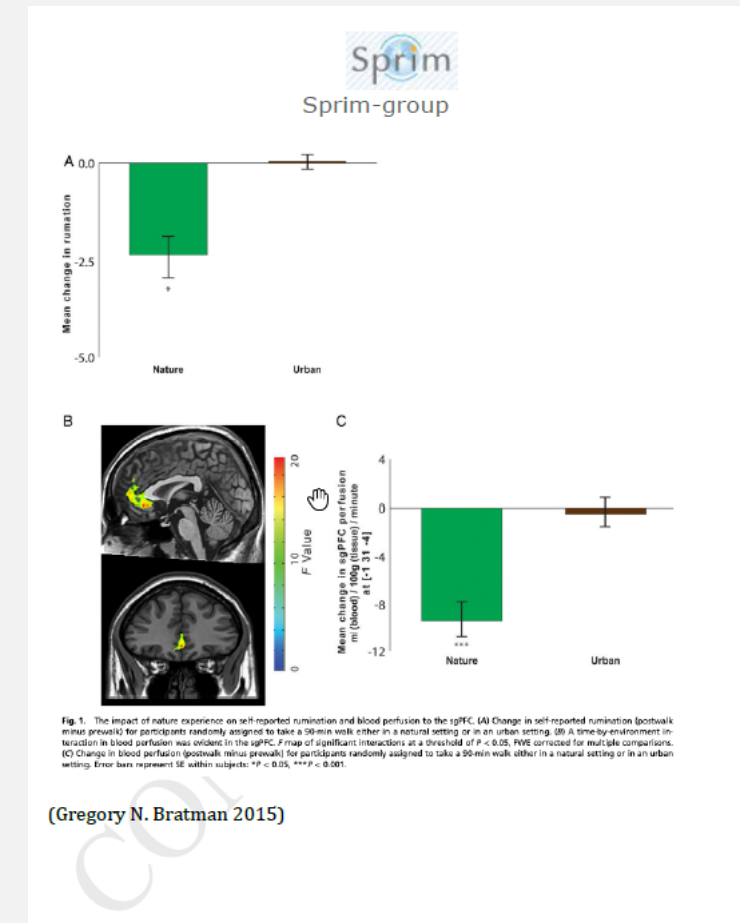
faire face. Dans les sociétés occidentales, cette approche est intégrée à la vie des individus depuis le XIXe siècle. L'exemple le plus connu est peut-être la thérapie Kneipp en Allemagne. La thérapie Kneipp utilise les forêts principalement comme domaine de la thérapie par l'exercice, qui est l'un des cinq piliers de la méthode. Cependant, bien que la thérapie Kneipp

E.Morita 2005

Cette étude a révélé que le shinrin-yoku améliorait les émotions aiguës.

Margaret M. Hansen, Reo Jones, and Kirsten Tocchini - Shinrin-Yoku (Forest Bathing) and Nature Therapy: A State-of-the-Art Review - Int J Environ Res Public Health. 2017 Aug; 14(8): 851. Published online 2017 Jul 28. doi: 10.3390/ijerph14080851

Shu-Ye Jiang, Ali Ma and Srinivasan Ramachandran -Negative Air Ions and Their Effects on Human Health and Air Quality Improvement -Temasek Life Sciences Laboratory, 1 Research Link, National University of Singapore, 2018





Nature experience reduces rumination and subgenual prefrontal cortex activation

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Contributed by Gretchen C. Daily, May 28, 2015 (sent for review March 9, 2015; reviewed by Leslie Baxter, Elliot T. Berkman, and Andreas Meyer-Lindenberg)

Urbanization has many benefits, but it also is associated with increased levels of mental illness, including depression. It has been suggested that decreased nature experience may help to explain the link between urbanization and mental illness. This suggestion is supported by a growing body of correlational and experimental evidence, which raises a further question: what mechanism(s) link decreased nature experience to the development of mental illness? One such mechanism might be the impact of nature exposure on rumination, a maladaptive pattern of self-referential thought that is associated with heightened risk for depression and other mental illnesses. We show in healthy participants that a brief nature experience, a 90-min walk in a natural setting, decreases both self-reported rumination and neural activity in the subgenual prefrontal cortex (sgPFC), whereas a 90-min walk in an urban setting has no such effects on self-reported rumination or neural activity. In other studies, the sgPFC has been associated with a self-focused behavioral withdrawal linked to rumination in both depressed and healthy

urban greenspace) can improve memory and attention (12) and increase positive mood (13). Experimenters also have used psychophysiological methods to characterize the ways in which images and sounds of the natural environment lead to decreased stress and negative emotion after participants have been subjected to stressful stimuli (14, 15). Taken together, these and numerous other studies provide compelling evidence that nature experience may confer real psychological benefits.

Although this body of work is now substantial, there remains a fundamental yet unanswered question: by what mechanism(s) might nature experience buffer against the development of mental illness? One possible mechanism—and our focus here—is a decrease in rumination, a maladaptive pattern of self-referential thought that is associated with heightened risk for depression and other mental illnesses (16–18) and with activity in the subgenual prefrontal cortex (sgPFC) (19). The sgPFC has been shown to display increased ac-

En 2011, l'Organisation mondiale de la santé (OMS) a publié un rapport sur ce sujet, appelé « Burden of disease from environmental noise ». Cette étude a rassemblé pendant 10 ans, des données issues de diverses études épidémiologiques à grande échelle sur 10 ans sur le bruit environnemental en Europe occidentale.

<https://apps.who.int/iris/bitstream/handle/10665/326424/9789289002295-eng.pdf>

L. Bernardi, C. Porta, P. Sleight - Cardiovascular, cerebrovascular, and respiratory changes induced by different types of music in musicians and non-musicians: the importance of silence – Heart. 2006 Apr; 92(4) : 445-452

Le manque de lumière en hiver impacte l'humeur et la photothérapie peut avoir des bénéfices, comme l'indiquent plusieurs études dont l'étude publiée dans la revue Biological Psychiatry en 2009, menée par P.-P. Lavoie et al

Balchin R, Linde J, Blackhurst D, Rauch HL, Schönbächler G. Sweating away depression? The impact of intensive exercise on depression. J Affect Disord. 2016 Aug;200:218-21. doi: 10.1016/j.jad.2016.04.030. Epub 2016 Apr 20. PMID: 27137088



L'étude de Rapoliene et al. menée en 2016, a prouvé que chez des hommes travaillant dans un milieu maritime soumis à un stress important, les bains d'eau géothermique réduisent le stress, la fatigue et la douleur, améliorent l'humeur, la gestion du stress et les fonctions cognitives, et ont un effet positif sur le système cardio-pulmonaire.

Lolita Rapolienė, Artūras Razbadauskas, Jonas Salyga, and Arvydas Martinkėnas - Stress and Fatigue Management Using Balneotherapy in a Short-Time Randomized Controlled Trial
Volume 2016 | Article ID 9631684 | <https://doi.org/10.1155/2016/9631684>

Une autre étude (Matzer et al., 2017) a montré les effets bénéfiques d'une activité physique type marche ou randonnée suivie d'une balnéothérapie sur le stress et le bien-être physique et moral.

Matzer F, Nagele E, Lerch N, Vajda C, Fazekas C. Combining walking and relaxation for stress reduction—A randomized cross-over trial in healthy adults. Stress and Health. 2017;1–11. <https://doi.org/10.1002/smi.2781>

Matzer F, Nagele E, Bahadori B, Dam K, Fazekas C: Stress-Relieving Effects of Short-Term Balneotherapy - a Randomized Controlled Pilot Study in Healthy Adults. Forsch Komplementmed 2014;21:105-110. doi: 10.1159/000360966

ORIGINAL ARTICLE

Association of elevation, urbanization and ambient temperature with obesity prevalence in the United States

JD Voss¹, P Masuoka¹, BJ Webber¹, AI Scher¹ and RL Atkinson^{2,3,4}

BACKGROUND: The macrogeographic distribution of obesity in the United States, including the association between elevation and body mass index (BMI), is largely unexplained. This study examines the relationship between obesity and elevation, ambient temperature and urbanization.

METHODS AND FINDINGS: Data from a cross-sectional, nationally representative sample of 422 603 US adults containing BMI, behavioral (diet, physical activity, smoking) and demographic (age, sex, race/ethnicity, education, employment, income) variables from the 2011 Behavioral Risk Factor Surveillance System were merged with elevation and temperature data from WorldClim and with urbanization data from the US Department of Agriculture. There was an approximately parabolic relationship between mean annual temperature and obesity, with maximum prevalence in counties with average temperatures near 18 °C. Urbanization and obesity prevalence exhibited an inverse relationship (30.9% in rural or nonmetro counties, 29.2% in metro counties with < 250 000 people, 28.1% in counties with population from 250 000 to 1 million and 26.2% in counties with > 1 million). After controlling for urbanization, temperature category and behavioral and demographic factors, male and female Americans living < 500 m above sea level had 5.1 (95% confidence interval (CI) 2.7–9.5) and 3.9 (95% CI 1.6–9.3) times the odds of obesity, respectively, as compared with counterparts living ≥ 3000 m above sea level.

CONCLUSIONS: Obesity prevalence in the United States is inversely associated with elevation and urbanization, after adjusting for temperature, diet, physical activity, smoking and demographic factors.

« Ce qui est bien dans ce papier, c'est qu'il montre clairement que la diminution de l'apport calorique a un effet durable, que les gens mangent moins, même un mois après avoir quitté l'altitude », a déclaré à Wired, Kay Leissner, expert en altitude et anesthésiste au Massachusetts General Hospital au moment de la publication de l'étude.



Il est indéniable que l'environnement de basse altitude en oxygène a un effet : comme le souligne LiveScience, des études in vitro montrent que les cellules humaines produisent plus de leptine (l'hormone qui aide à se sentir rassasié) lorsqu'elles sont exposées à un air qui se réplique à haute altitude.

avons publié nos conclusions dans l'International Journal of Obesity (publication en ligne avancée doi: 10.1038 / ijo.2013.5) et présentées à la conférence 2013 de l'American College of Preventive Medicine.

[Samarmar Chacaroun](#), [Anna Borowik](#), [Ignacio Vega-Escamilla Y Gonzalez](#), [StÉphane Doutreleau](#), [Bernard Wuyam](#), [Elise Belaidi](#), [Renaud Tamisier](#), [Jean-Louis Pepin](#), [Patrice Flore](#), [Samuel Verges](#) - Hypoxic Exercise Training to Improve Exercise Capacity in Obese Individuals - 2020

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Water-generated negative air ions activate NK cell and inhibit carcinogenesis in mice

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Abstract

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Characterization of ions at Alpine waterfalls

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Altitude, life expectancy and mortality from ischaemic heart disease, stroke, COPD and cancers: national population-based analysis of US counties

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ABSTRACT

Background There is a substantial variation in life expectancy across US counties, primarily owing to differentials in chronic diseases. The authors' aim was to examine the association of life expectancy and mortality from selected diseases with altitude.

Methods The authors used data from the National Elevation Dataset, National Center for Health Statistics and US Census. The authors analysed the crude association of mean county altitude with life expectancy and mortality from ischaemic heart disease (IHD), stroke, chronic obstructive pulmonary disease (COPD) and cancers, and adjusted the associations for socio-demographic factors, migration, average annual solar radiation, and cumulative exposure to smoking in

dose–response relationships over a wide elevation range.

We analysed the association of life expectancy and mortality from leading chronic diseases with mean elevation of county of residence in the continental USA. We adjusted the associations for socio-demographic factors, migration, average annual solar radiation and smoking. This produces consistent and comparable analysis of the altitude–mortality association for multiple diseases in the general population and over a large elevation range.

METHODS

We analysed the association between mean county

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