

CONFERENCE ON ENVIRONMENTAL PSYCHOLOGY

Marie Elf



Architecture and
stroke. Case studies
and findings

Susana Batel



Climate crisis and the green
transition: The relevance of a
critical environmental
psychology approach.

John Thøgersen



Norm dynamics and
“tipping points” for
climate-relevant
behaviour.

2025

Simone Gassini



Neural evidence for the
effects of nature and
theoretical
developments



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Book of Abstracts
Conference of Environmental Psychology
DAY 1 – MANKIND IN THE CLIMATE
CRISIS
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Norm dynamics and “tipping points” for climate-relevant behavior

John Thøgersen

Aarhus University

More climate-friendly and in other ways sustainable consumption is urgently called for but emerging very slowly at best. In this presentation, I will discuss recent advances in understanding the role of social norms in shaping, reinforcing, and changing consumption patterns, including possible “social tipping points”. To do so, I will draw primarily on psychological, but also on sociological and institutional theories and research, and for illustration I will draw on a recent empirical study of the development over time (from 2019 to 2021) in red meat consumption in Norway – a climate relevant behavior that has drawn a lot of attention in research and politics. In Norway as in many other countries, red meat consumption is strongly supported by social norms, red meat being considered a high-quality, high-status type of food. However, it seems to be challenged by the societal attention to its negative climate impacts. The attention to climate impacts of the diet may lead people to internalize norms for a climate-friendly diet and thus reduce their red-meat consumption. Confirming this, our empirical studies revealed an influence of pro-climate mitigation norms on red meat consumption in Norway in the analyzed period, but rather weak, and it was further weakened in the 2020-21 period, during the Covid19 pandemic. The study illustrates that only under unlikely lucky circumstances will a modern society spontaneously reach a social “tipping point” regarding red meat consumption. Hence, it is important to develop, test, and implement policy measures that can effectively nurture pro-climate mitigation norms and facilitate the needed changes in dietary and other norms. Research on norm dynamics and facilitators of norm changes is emerging, and much creativity and effort are already mustered in this regard in the international environmental psychology community and beyond, but much more is needed. I can only encourage participants of the conference to contribute to this quest.

In Search of Manifestations and Imaginations of the Climate Crisis

Oliver Clifford Pedersen, Maeva Perrin

University of Neuchâtel

Drawing on a sociocultural approach in psychology, we explore how one person's experience and imagination of the climate crisis evolve over more than 20 years of diary writing. This longitudinal analysis captures subtle shifts in people's experience close to real time, allowing us to theorise when and how the climate crisis is manifested, felt, and imagined. We attempt to move beyond the common definition of crisis as an exceptional disruption in time, recognising that it can also be a slow and elusive process, and ask which events brings the climate crisis to the forefront of people's experience.

We divide the analysis into three distinct periods, each indicating an imaginative transformation, in which a temporal realignment occurs, and the climate crisis move from the distant horizon into the present and simultaneously become more concrete and apocalyptic in nature. The analysis also traces fluctuations in eco-emotions and challenges static and linear categorisations, as well as demonstrate that the dichotomy between indirect and direct exposures become intimately entangled through time and impinge on the imagination. This research attempts to provide a dynamic, contextually sensitive account of how the climate crisis is experienced and imagined over time.

Further development of environmental subjectivities: How to investigate the chthulucenic subjectivity?

Erik Nakkerud

Oslo New University College

The presentation builds on the presenter's recently published article: "Exploring environmental subjectivities in a changing climate". This article explored environmental subjectivities in a Norwegian context. Through a Foucauldian discourse analysis, five subjectivities were constructed: consumeristic, doomist, disanthropic, activist, and chthulucenic. Consumeristic subjectivity focuses on responsible consumption; Doomist subjectivity is related to a partial disengagement from societal issues; Disanthropic subjectivity emphasizes anti-speciesism and misanthropy; Activist subjectivity is concerned with systemic challenges and collective action for environmental change; Chthulucenic subjectivity integrates ecological thinking and interconnectedness with non-human species. As the article suggested that it is theoretically and empirically fruitful to distinguish between several variants of environmental subjectivities, the aim of this presentation is to present ways in which specifically the chthulucenic subjectivity might be further investigated theoretically and empirically.

What appraisals underly discrete climate emotions?

Gisela Böhm¹, Thea Gregersen²

University of Bergen¹, INN 3²

Discrete emotions, such as fear or anger, have been found to predict judgments and behaviors towards climate change. These emotions are typically measured by asking respondents to indicate to which extent they experience them. However, there is increasing dissatisfaction with this kind of measurement. The argument is that knowledge regarding the intensity of an emotion does not suffice to understand people's experience; we also need to know its target. For example, Geiger, Dwyer, & Swim (2023) showed that hope based on the possibility of taking action against climate change was associated with climate engagement whereas hope based on climate change not being a problem was not.

Starting from an appraisal-theoretical approach, we aim to analyze the underlying appraisals of six discrete climate emotions: hope, fear, sadness, anger, guilt, and powerlessness, using an online survey. A representative sample of the Norwegian public (Norwegia Citizen Panel) was asked, on a rating scale, to indicate how intensely they experience each emotion. Then, respondents were requested to explain what was going through their minds when responding to one randomly selected emotion ($n \approx 330$ for each emotion). Fieldwork was conducted November-December 2024.

Data analysis is ongoing. We manually screen the responses for emotion-specific appraisals based on theory (e.g., anticipation of future threats for fear, injustice for anger), and apply automated text analysis, such as topic modeling and AI tools, to identify potential new appraisals.

Our results will give a much-nuanced picture of the relationship between appraisals and climate emotions.

A taste for sustainability? How sustainability attributes shape consumers' expectations and perception of wine

Rieke S. Kohn

Norwegian School of Economics

As most industries, the wine sector faces increasing pressure to reduce its negative environmental and social impact and, in turn, to introduce sustainability attributes to its products. However, it remains unclear which inferences consumers make about the relationship between such sustainability attributes and the expected and perceived quality of wines. In this paper, we experimentally vary three sustainability attributes – eco-packaging, eco-production, and social production – in order to investigate consumers' preferences and their inferences about how these attributes influence the quality of wines, and the importance of such inferences in forming perceived taste. We conduct a lab-in-the-field experiment (n=76) in which participants taste and rate three sets of wines, each containing one sustainable wine and two comparable conventional wines. The tasting follows a between-subject design with an informed and a blind condition. To inform the experiment, we also conduct an online survey (n=739) on beliefs and quality expectations regarding sustainable wines. Results reveal a complex pattern of inference and evaluation: Although eco-packaging is not believed to have a negative effect on wine quality and taste, wine labeled as eco-packaged was liked less when participants were informed of this attribute (versus blind). Conversely, eco-production was largely believed to have a positive effect on wine quality and taste, yet this belief did not translate to a higher liking of such wines in an informed versus blind tasting. Finally, there are mixed beliefs regarding the effect of ethical production on wine quality. Still, ethical wines are rated significantly higher in liking when tasters are informed about the sustainability attribute (versus blind tasting). Importantly, our study reveals limitations of our theoretical understanding of how inferential beliefs shape environmentally relevant consumption experiences and guides implications for fostering sustainable consumer behavior in the wine industry.

Negotiating Sustainability: Expert Discourses on Battery Sustainability in the Energy Transition

Dora S. Asmundardottir

University of Oslo

Despite the crucial role of batteries in the energy transition and the growing importance of their sustainability, no research has addressed how experts construct, negotiate, and evaluate the sustainability of batteries. This article addressed this gap by interviewing experts working in the battery industry in Norway. Drawing on social representation theory and critical discursive psychology, we attend to both construction (what is said) and function (why it is said) of the expert talk. The analysis illustrates that the dominant representations of battery sustainability align with weak sustainability, framing batteries as a necessary solution compatible with continued growth and prosperity. The flexibility of the sustainability concept was used to legitimize social and environmental consequences, thereby justifying the status quo and maintaining the existing system of inequality. Yet, critical (polemic) representations also appear in the interviews, where electrification and batteries are questioned as the path to a sustainable future. These alternative representations emphasize systemic transformation and sufficiency, opening space for stronger forms of sustainability. Overall, the findings highlight how expert discourse contributes to shaping the meaning and practical use of sustainability in the energy transition, primarily reinforcing dominant understandings of sustainability, while expressing personal aspirations for more transformative alternatives.

Who is willing to share products? Exploring the sharing economy in Germany, Italy, South-Africa, and India

Sari Verachtert

Norwegian University of Science and Technology

The traditional linear economy is based on a “take-make-dispose” model, where products are used and eventually discarded. In contrast, the circular economy promotes sustainability by extending the life cycle of products through strategies such as refuse, reuse, refurbish, remanufacture, share, repair, and recycle (White, Habib, & Hardisty, 2019). However, its success depends not only on collaboration between industries and policymakers but also on consumer acceptance. Despite growing interest in the concept of the circular economy, most existing research focuses on the materials and production side, with limited attention to consumer behaviour. Furthermore, very few studies have been conducted in the Global South. In this context, this study addresses these gaps by specifically focusing on the sharing economy or collaborative consumption, an important yet understudied behaviour of the circular economy, in various regions. More specifically, this work wants to identify possible predictors of product sharing. Since cultural differences and socioeconomic aspects can play a role in consumer behaviour, this study compares attitudes and behaviour toward sharing in different regions: Germany, India, Italy, and South Africa. Drawing on a large-scale questionnaire of more than 4,000 respondents, the study identifies cross-cultural differences in sharing behaviour. The first results of this ongoing paper will be discussed. By shedding light on barriers and drivers in product sharing, this research contributes to a better understanding of how to promote and enhance consumer engagement in a circular economy.

A mixed methods study of affective polarization in climate policy support

Thea Gregersen, Ida Vikøren Andersen

NORCE Research Centre

Over the last decades, the issue of climate change has become increasingly politicized. People disagree both about the severity of the threat, and the policies that should be implemented to mitigate or adapt to it. While opinion polarization is natural in a democratic society, affective polarization (the tendency to dislike or distrust those with opposing views), can stifle policy compromises and collaboration for beneficial goods and impair interactions with family, friends, and strangers. So far, the concept has first and foremost been used in the context of political partisanship. The current study investigates issue-based affective polarization, specifically related to opinions towards climate policy. Our results are based on a quantitative survey of the Norwegian public ($N = 2699$) and semi-structured interviews with approximately 30 informants, who were recruited based on their survey responses.

Preliminary findings show that both high and low climate worry, as well as strong support or opposition of climate policies, increased the tendency for affective polarization. The tendency was also stronger among people with higher political self-confidence and among those reporting stronger anger about political inaction. The interviews help nuance the quantitative results and provide insight into who people imagine their “political enemy” to be, including the activist, the moralist, the denier, and the selfish over-consumer.

Exploitability as a concept within environmental resource theory: a functional perspective on human-environment interactions

Svein Åge K. Johnsen

University of Inland Norway

The purpose of this presentation is to give an overview of a novel concept termed exploitability as introduced within environmental resource theory. Exploitability has to do with the perceived ease that environmental resources can be accessed and utilized. This concept can be placed at the intersection of ecology, evolutionary theory, and psychology. It is a relational concept. The exploitability of a certain environment can increase or decrease depending on a number of factors, such as if it is perceived to be dangerous, whether an environment is controlled by an outgroup, to name a few. Human beings appear to be able to exploit almost all environments on the planet, at least on a societal level. Maintaining a relationship with the environment is one important way to increase the exploitability of it, and place attachment, if seen as a process, accompanies this. Environmental degradation due to e.g. climate change may lead people to perceive that an environment becomes less exploitable than it used to be, place attachment may weaken, which may impact wellbeing. Lower exploitability is a potential threat. When an environment becomes degraded, people probably rely increasingly on social systems as means to increase exploitability, which could worsen environmental problems, rather than lessen them.

Water insecurity, mental health, and healthcare engagement among women of mixed perinatal status living with HIV in South Africa

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Background: South Africa faces significant climate vulnerabilities and water insecurity alongside a high prevalence of HIV and maternal mental health disorders. Addressing the intersecting epidemics of water insecurity and mental health is needed to improve healthcare engagement, treatment adherence, and quality of life for women living with HIV.

Method: We enrolled 164 adult women living with HIV participating in a larger study (N = 501) of water insecurity and women's mental health. Surveys were administered in English and isiXhosa to measure water insecurity (12-item Individual Water Insecurity Experiences [IWISE] scale); awareness of climate change; symptoms of depression (20-item Center for Epidemiologic Studies Depression Scale—Revised [CESD-R]), anxiety (GAD-7), climate anxiety, and traumatic stress (5-item Primary Care PTSD Screen for DSM-5 [PTSD-5]); and healthcare engagement. All participants reported at least one current or past pregnancy. ANOVA was used to estimate the association between water insecurity and mental health symptom severity while adjusting for sociodemographic characteristics. Key findings were compared across perinatal (n = 80) and non-perinatal (n = 84) groups. Women were also surveyed about how water insecurity affected their engagement in any kind of healthcare.

Results: All were Black, primarily isiXhosa speaking (85%), heterosexual, and receiving care at two publicly funded clinics near Cape Town. The mean age was 34 years (SD = 9.9), and the mean household size was 4.6 members (SD = 2.1). Participants were pregnant (33.5%), postpartum (25.6%), and currently breastfeeding (24.0%), with 10% both pregnant and postpartum. All participants reported at least one current or past pregnancy. Most (73%) had heard of climate change. Mean symptom severity was high across all mental health measures: depression (M = 27, SD = 21), anxiety (M = 9.5, SD = 5.8), climate anxiety (M = 17, SD = 12), and traumatic stress (M = 2.0, SD = 1.7). Water insecurity was also high (M = 20, SD = 9.1) and predicted depression ($F(1, 163) = 16.54, p < .001$), anxiety ($F(1, 163) = 14.61, p < .001$), and climate anxiety ($F(1, 163) = 9.97, p = .002$), but not traumatic stress ($F(1, 163) = .023, p = .880$).

Conclusion: Women living in resource-constrained settings affected by climate change experience increased exposure to environmental threats like water insecurity. Water insecurity was associated with poorer mental health, HIV care engagement, and perinatal care engagement. Findings will help advance a theory of water insecurity, HIV, and psychological distress, which is critical to improving health and maternal health outcomes for women living with HIV in South Africa.

Coping with scarcity: Water insecurity and coping among South African women with mixed pregnancy and HIV Status

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Background: Many women in South Africa experience intersecting challenges of water insecurity, HIV, pregnancy, and psychosocial distress. Psychological coping strategies are central to how individuals navigate these stressors, yet empirical evidence on culturally relevant coping in the context of climate-related stressors remains limited. This study aimed to generate evidence on how women in resource-limited South African communities cope with water insecurity, highlighting differences across pregnancy and HIV status. Results inform culturally and clinically relevant interventions, resilience strategies, and climate adaptation policies.

Methods: As part of a larger study on water insecurity and healthcare engagement, women (N = 501) were recruited from two state-funded clinics in peri-urban and urban areas near Cape Town, South Africa, including Khayelitsha, a resource-limited settlement with 65.4% reporting no access to piped water inside their residences. Surveys were administered in isiXhosa, Afrikaans, or English. Assessment included measures of water insecurity, coping strategies (emotion-focused, problem-focused, avoidant), mental health symptoms (depression, anxiety, traumatic stress), alcohol use, and demographic and health characteristics. Most women (75%) reported hearing about climate change prior to enrolling in this study.

Results: Participants had a mean age of 33.15 years (SD= 9.94); 42.4% were living with HIV, 49.0% were pregnant, 11.0% were both pregnant and living with HIV, and 23% were breastfeeding. Household water insecurity was high (M = 17.66, SD = 10.25; >12 = insecure). The most common stressors were interruptions in the main water source, worry about insufficient water supply, anger about the water situation, and inability to wash clothes or bathe. Depression scores were high for the overall sample (M = 28.05, SD = 21.55), with scores above 16 indicating likely clinical depression. Anxiety scores were moderate (M = 9.60, SD = 5.93). All coping domains were correlated with depression, anxiety, and traumatic stress. Emotion-focused coping was most

Conclusions: Results suggest that pregnancy may reduce women's capacity for employing adaptive coping mechanisms in the face of water insecurity. Findings highlight the salience of coping mechanisms, especially emotion-focused coping set in religious practices, as a culturally relevant resilience strategy for women facing water insecurity in South Africa. With the highest global rate of fetal alcohol syndrome, results also underscore the risks of maladaptive coping, such as alcohol use, for South African women. Interventions that strengthen adaptive coping and address problematic substance use are urgently needed to improve psychosocial well-being for women disproportionately impacted by water insecurity.

Climate labels give little food for thought, even when fed to young sustainability mindsets

Ragnhild Eg, Josephine Baloyi, Paula Varela, Ingunn Berget

Nofima

Food provides essential nourishment not only to the organism, but also to the social and cultural practices that tie us together. Yet, the way we interact with food is a substantial factor in the equation when calculating the human impact on the environment. This work will present an online experimental study, part of a larger project (FATE), which investigates the potential role of a sustainability mindset in making more climate friendly food choices. We conducted the study with 310 young participants (16-22 years, 170 females) who evaluated the perceived tastiness, perceived healthiness, and their willingness to try 12 different food items. Four food items were indicative of high climate impact (carbon footprint), according to Klimato's database, four had medium impact, and four had low impact. The food items were presented as pictures of a daily special in an unspecified canteen. Participants were randomly allocated to one of three conditions; one experimental group viewed the food pictures with climate labels, preceded by an introductory text that explained the labels' significance, the other experimental group viewed the same pictures, with labels but without background information, and the control group saw the food images without climate labels. Participants also responded to measures identified as constituents of a sustainability mindset, including the New Ecological Paradigm (NEP), the Systems Thinking Scale, and self-efficacy; other measures addressed trust, food chores, and familiarity with climate labels. The mindset measures had little bearing on participants' perceptions or willingness to try the food items. The only significant effect found was for systems thinking and perceived healthiness; those who scored above the median on systems thinking perceived the items with low climate impact as healthier than those who scored below the median. This difference could possibly be related to the tendency of systems thinkers to see connections, in this case between climate health and human health. There was a significant correlation between the systems thinking scale and NEP, as documented by others. Conversely, self-efficacy correlated negatively with both systems thinking and NEP, and it stood out in its distinction of trust across different hypothetical initiators of a canteen intervention. Those who scored above the median on self-efficacy reported the highest trust, compared to those who scored below, regardless of the initiators representing the government, county, school administration, or student level. Combined with results from other studies in the project, we see that neither sustainability mindsets in general nor ecological values in particular bear impact on the way young people perceive food. It may be that it is difficult to see the connection between the nourishment we need to survive and thrive and the burden it poses on the planet, or it may be that the challenge of reducing our combined impact is too large for an individual to consider in everyday choices.

Hoping in the face of hopelessness – Active hope and climate activism.

Linda Persson, Nina Christenson

Karlstad university

Climate change is associated with many risks and climate activists clearly perceive risks with climate change. Perceiving risks can lead to action, i.e. efforts to reduce the risks, but also to denial. Many point to the need for hope to prevent passivisation, and a lack of hope has even been indicated as a predictor of reduced climate risk perception. Moreover, being hopeful is correlated to pro- environmental behaviour. This is rather contrary to the messaging from the climate movement itself. Greta Thunberg states that she does not want us to be hopeful but rather to feel the fear that she feels, and the motto of Extinction rebellion saying “Hope dies, action begins”.

For this study 15 semi-structured interviews with young (age 18-29) climate activists in Sweden participating in Fridays for Future, XR, and/or Klimatstudenterna (the Climate students), has been used.

Preliminary results show that climate activists are very pessimistic about the future and society’s ability to prevent and handle climate change. They feel scared and worried about the future and some are even using words such as anxiety and panic to describe how they feel about climate change and the future. This can indeed be interpreted as hopelessness by the definition that they do not believe that the problem, causing the risks, will be solved. Many even explicitly say that they feel hopeless. Yet, even without hope they have a high level of climate change risk perception and they are more active than the average citizen. A likely answer to this is the role of active hope. This type of hope is generated through action and doesn’t require any optimism about the outcome. Climate activism highlights the importance to differentiate between different types of hope in research.

“We could have lifted all the weight in the world” – experiences of eco-anxiety and collective efficacy among beach cleaners

Selina Rombach, Frida Sundvor, Thea Gregersen, Rouven Doran

NORCE Research Centre & University of Bergen

Understanding how emotional responses to environmental crises manifest is crucial for promoting environmental action and well-being. While research on climate activists has provided valuable insights about eco-anxiety and related emotions, less is known about how such emotions unfold in other forms of environmental action. This study focuses on beach cleaning as a form of environmental action that simultaneously exposes volunteers to severe pollution and offers a tangible way to take reparative action.

Drawing on semi-structured interviews with 22 young international volunteers who spent several weeks cleaning marine debris along the Norwegian coastline, the analysis reveals that the term eco-anxiety seldom resonated with their current experiences. If anxiety was mentioned, this was not done in the context of beach cleaning but rather framed as a wider sense of anxiety about the future. Instead, emotions such as worry, sadness, and disgust were common responses to pollution exposure and often experienced as motivating. Interviewees emphasized that witnessing immediate impact, working collectively, and being physically active in nature helped them cope with these emotions, fostered well-being, and a strong sense of collective efficacy.

The study has two main contributions. First, it adds to the debates on the definition, relevance, and role of eco-anxiety, urging scholars interested in the concept to broaden the scope to reflect interconnected crises. Secondly, it encourages future research to examine the conditions under which negative emotions and collective efficacy arise within environmental action, sustaining both engagement and well-being.

Climate crisis and the green transition: The relevance of a critical environmental psychology approach

Susana Batel

Instituto Universitário de Lisboa

Energy (fossil, renewable) is increasingly ubiquitous in our societies and at the core of the current polycrisis of climate change, the rise in far-right wing populism, the Gaza genocide, the unaffordability of living, and related psycho-social-ecological impacts. However, Social Psychology is yet to fully recognize Energy as an object of academic interest and engage with people-energy relations as a crucial arena of socio-psychological governance and socio-political structuring and subjectivation in today's societies. In this keynote, I will propose how developing a Critical Environmental Psychology approach to the climate crisis and the green transition can be crucial to address that neglect and the multiple intersecting crises of our times.

DAY 2 – ARCHITECTURE AND NATURE



Architecture and stroke. Case studies and findings.

Marie Elf

Högskolan Dalarna

Recovery from stroke is lived more in kitchens, hallways and neighbourhoods than in clinics. Because behaviour is context-dependent, the home is not a backdrop but part of the therapeutic mechanism. This keynote argues for treating the home and its surrounding environments as active resources in rehabilitation. I show how person–environment fit, micro-adaptations and everyday routines shape motivation and repetition; why hospital evidence does not translate wholesale; and what changes when we plan for activity where people actually live. Grounded in case studies from my research, the talk offers a practical framework for environmental thinking at discharge and beyond, aligning architecture and rehabilitation so recovery is pursued where life is lived.

Are these streets made for walking? Measuring the effect of the built environment on brain activation and emotions (Cancelled presentation)

Lisa Marie Brunner, Pasi Aalto, Helge Hillnhütter, Christian A. Klöckner,
Martin Steinert, Henrikke Dybvik

Norwegian University of Science and Technology

Understanding how built environments influence emotional and cognitive responses is essential for promoting walkable, healthy cities. This study employs functional near-infrared spectroscopy (fNIRS) to investigate how different urban walking environments influence brain activation and emotional experience. While fNIRS has been used to compare natural and built settings, its application to urban contexts remains limited. In a controlled laboratory experiment, participants ($N = 51$) viewed short videos of four real-world environments that varied in walk quality. We measured prefrontal cortex haemodynamic responses and collected self-reported emotional data. Higher-quality environments were associated with more pleasant emotions and reduced prefrontal activation, while lower-quality environments showed the opposite pattern. These findings demonstrate that built environments elicit measurable differences in emotional and neural responses, highlighting the potential of fNIRS in neurourbanism research and its relevance for evidence-based urban design.

A Study on the Characteristics and Utilization Strategies of Outdoor Seating Spaces on University Campuses from an Environmental Psychology Perspective

Lihyo Sung

Sungkyunkwan University

Background: In recent years, university campuses have evolved into learning ecosystems where learning and social interaction extend beyond classrooms and libraries. Among these spaces, outdoor seating areas have become essential environments that support learning, recovery, and social exchange. These areas are not merely physical facilities but play significant psychological and social roles, influencing students' well-being, behaviors, and sense of community. However, most previous studies have focused on physical and architectural factors, with limited attention to psychological experiences and cultural or climatic contexts. This study addresses this gap by examining outdoor seating areas from an environmental psychology perspective.

Methods: This study adopted a comparative case study approach to analyze outdoor seating areas across different cultural and climatic contexts. Five campuses—Harvard University (US), London School of Economics (UK), Technical University of Munich (Germany), University of Tokyo (Japan), and National University of Singapore (Singapore)—were selected based on their academic significance, cultural diversity, and spatial characteristics. Guided by previous environmental psychology research, four core evaluation dimensions were established: Learning Support, Sociability, Privacy and Refuge, and Place Attachment and Aesthetics.

A qualitative case analysis was conducted for each campus, followed by radar chart visualization to highlight the strengths and weaknesses of each campus. This enabled an intuitive comparison of patterns and differences across varying cultural and climatic contexts.

Results: The analysis identified distinctive characteristics for each campus. Harvard University excelled in fostering social interaction through its open layout and diverse seating but lacked privacy for focused study. LSE effectively combined aesthetics and interaction within a compact urban space, though learning support and privacy were limited. TUM showed strong balance across the four dimensions, with innovative design supporting both individual and group activities. However, some functional facilities for extended study were found to be insufficient. University of Tokyo offered strong historical identity and communal symbolism, yet needed improvements in learning facilities and privacy. NUS demonstrated outstanding learning support and climate-responsive design, while providing limited personal refuge.

Radar chart comparisons confirmed that TUM achieved the most balanced performance overall, Harvard and NUS were strong in learning support and interaction, Tokyo excelled in place attachment but was weak in privacy, and LSE showed moderate performance across all areas.

Conclusion: This study emphasizes that the design of outdoor seating areas should be evaluated from a holistic perspective, rather than through a single functional criterion. It highlights the need for purpose-specific design strategies—such as those centered on social exchange, learning, or restorative experiences—to improve the quality of students' engagement with campus spaces. By offering practical guidelines for user-centred planning, this research extends the practical applications of environmental psychology while providing valuable insights for the future design and management of global university campuses.

Navigating the Open-Plan Office: How the Negotiation between Social and Spatial Dimensions Shape the Everyday Practices of Office Workers

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Navigating the open-plan office (OPO) involves for office workers, alongside core work activities, a range of everyday practices such as initiating interactions, taking breaks or selecting desk. We hypothesise that these practices emerge from the dynamic negotiation between the social and spatial dimensions of the OPO, as they are shaped not only by its spatial features but also by how it is socially inhabited. A nine-day field study was set-up using a mixed-method approach, including interviews, participant observation, behavioural mapping, questionnaire, diary logging and data physicalisation toolkit. Our findings show that office workers continuously negotiate the social and spatial dimensions when performing practices, especially when responding to shifts in socio-spatial comfort. This negotiation is shaped by a complex interplay between determinants of context, individual preference and time. This study contributes by: (1) mapping the diverse everyday practices within an OPO; (2) deepening an understanding of the negotiation between the social and spatial dimensions; and (3) offering insights into how socio-spatial comfort emerges.

Designing for Flourishing: Applying Wellbeing Science-based Design Approaches for Occupant Behavioral Change and Environmental Psychology Impact

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How can the act of designing places we inhabit move beyond function to actively support human flourishing? This talk reimagines how built environments can nurture physical, mental, and social wellbeing and impact environmental psychology-related experiences when considered from the perspective of eudaimonia-focused design. Drawing on neo-Aristotelian philosophy and contemporary research in psychology and design, this talk introduces Eudaimonic Design as a means of shaping environments that meet fundamental human needs—fostering agency, growth, and connection—while augmenting experience. Research insights and case studies will be presented to demonstrate how design strategies, ranging from praxis (e.g., inclusive approaches and creative methods) to practice (spatial configuration and sensory perception), can transform environments into catalysts for curiosity, activation, and thriving. By embedding principles of flourishing into environmental psychology, we move closer to creating places that not only sustain life but also enable individuals to realize their fullest potential.

Zooming in on the travel behaviour change process – a longitudinal mixed-method approach to study mobility outcomes during residential relocations

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Residential relocations are commonly understood as ‘moments of change’ that can lead to altered daily behaviours (Whitmarsh et al., 2025). Indeed, studies show changes in travel behaviour after people move house (Beige & Axhausen, 2017; De Vos et al., 2018). However, the underlying causes remain unclear. Qualitative research has revealed that relocation is a complex process and how its different stages can affect later transport choices (Jones & Ogilvie, 2012; Stanbridge et al., 2004; Zarabi et al., 2019). However, most studies rely on retrospective research designs and are likely limited by recall bias (Müggenburg, 2021) and hindsight rationalisations of past choices. This might fail to detect the full complexity of the negotiation and adaptation process during relocation (e.g. alternatives considered/discarded, barriers encountered, compromises made). A deeper understanding of this process can improve the timing and design of policy interventions aimed at promoting sustainable alternatives to car use.

To address this research gap, we conducted a longitudinal mixed-method study with prospective movers in Denmark over a period of approximately 9 months. Participants were interviewed both before (n=30) and after their expected relocation date (n=21). This allows us to compare their expectations, ideas, and desires before moving with their actual experiences and decisions made after relocation. In the same period, these individuals tracked their actual travel behaviour using a smartphone app with automatic transport mode recognition. Via the same app, they completed biweekly attitude and satisfaction questionnaires concerning their travel. We will present preliminary insights into the travel behaviour change process, combining people’s subjective experiences as well as actual behavioural choices.

Motivations for Electric Vehicle Adoption and Their Impact on Post-Adoption Attitudes and Behaviour: A Longitudinal Study informed by Goal-Framing Theory

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Electric vehicle technologies have been widely promoted as a means to support sustainable mobility and reduce greenhouse gas emissions in the transport sector. However, individual behaviour following the adoption of a new car may lead to rebound and negative spillover effects that undermine the expected environmental benefits of promoting and adopting battery electric vehicles (BEVs) (Ojeda-Diaz et al., 2025).

In this study, we examine the motivations behind purchasing a BEV before adoption and how these motivations relate to changes in attitudes and behaviours after adoption. We expect the type of goal, i.e., gain, hedonic, or normative (e.g. pro-environmental motivation), will result in different effects for the adopters. The influence of these goals has been previously related to intentions to adopt a BEV (Rezvani et al., 2018), but there is limited evidence of their relationship with post-purchase behaviours. This study examines the behavioural changes with environmental consequences, such as shifts in travel patterns, driving style and future car adoption, that may affect overall CO₂ emissions following BEV adoption.

We use a case study design based on 18 semi-structured interviews conducted before adoption, and 9 interviews conducted after adoption or non-adoption of a BEV in Denmark. The data are analysed using qualitative thematic analysis, guided by predefined codes derived from behavioural theories, such as Goal-framing theory (Lindenberg & Steg, 2007; Onwezen, 2023). Additionally, an inductive coding strategy is applied to identify emergent themes and expand the analytical framework. The interview data is triangulated with longitudinal survey results and up to 9 months of individual app-based travel diaries to explore behaviour changes, driving patterns, and possible substitution effects.

The study aims to identify environmentally positive and negative changes in behaviours and attitudes, as well as rebound and spillover effects or the absence thereof. We will present initial insights from the qualitative and longitudinal survey data analysis, highlighting key behavioural patterns and psychological mechanisms. We expect that a better understanding of the psychological process and behavioural and attitudinal consequences of BEV adoption will inform intervention strategies to better exploit the environmental potential of BEV adoption.

The enjoyment of cargo bike use

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North America is often seen as a car-centric society, yet there are some who are finding other, more environmentally friendly, more active, alternatives than a car. Cargo bikes have the potential to replace a large portion of the many shorter car journeys, especially after the recent addition of electric cargo bikes. There is now an influx of people using e-cargo bikes for personal transportation, especially families with smaller kids, but also for transportations of good. The wide variety of use cases highlights the large potential, also among people not being bicycle enthusiasts, especially within the context of the 15-minute city. The goal is to gain understanding of how cargo bikes are being used among North Americans, why they are being used, and what is the experiential component of using a cargo bike in a car-centric society? Previous research has not investigated the use of cargo bikes in relation satisfaction and motivation, especially not from a more qualitative perspective, and few studies have been done from a North American perspective. This links cargo bikes to the current transition in urban mobility of a more sustainable, health-promoting, and accessible city. We conducted a survey in North America regarding motivation and satisfaction regarding using a cargo bike. Thematic analyses are used on open-ended responses (n=600). The 4 themes were formed during the analysis: the users, the experience, the human-built environment and the natural environment. 91% of respondents showed a high satisfaction rate of using a cargo bike. The most cited factor of enjoyment is an active lifestyle allowing for being outside more, especially with kids and spending quality time with kids. It is important for many of the respondents to model good behavior for their kids, and the kids love riding a cargo bike, calling it an out-of-the-car-experience. This connects back to how to create a transportation system which is more health-promoting, sustainable and fostering connections between people.

"I just don't want it to happen again": The role of responsibility in changes to everyday transport behaviour post road traffic crashes

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Road traffic crashes (RTCs), regardless of severity, are often experienced as sudden and disruptive events. While severe RTCs are associated with changes in transport behaviour, studies on the effect of involvement in RTCs of light to moderate severity are limited. This qualitative study explores how involvement in RTCs of light to moderate severity influences everyday transport behaviour, with a particular focus on self-ascribed responsibility among the people involved.

We conducted 20 semi-structured interviews with car drivers (n=13) and cyclists (n=7) involved in light to moderate RTCs within a period of 1 – 10 months before the interviews. Drawing on the Norm Activation Model, we examine how feelings of responsibility for the RTCs relate to changes in everyday transport behaviour. First findings suggest that participants who perceive themselves as responsible are more likely to modify their transport behaviour, such as route choice or driving style, to reduce guilt and prevent future harm to self and others. In contrast, those who do not feel responsible tend to focus on regaining a sense of control in traffic, often without substantial behavioural change. We additionally observe a lack of changes in the participants' transport mode choice following the crash, regardless of perceived responsibility.

Our study aims to contribute to a deeper understanding of the impact of RTC involvement on transport behaviour change and the motivations behind it. Moreover, it illuminates the role of social and personal norms in shaping everyday transport behaviour. We will present early insights into these processes, focusing on people's reflections on their own responsibility and the behavioural modifications they carry out after their involvement in an RTC.

Neural evidence for the effects of nature and theoretical developments

Professor Simone Grassini

University of Bergen

Evidence shows that contact with natural environments modulates brain and body function. The keynote reviews neural and psychophysiological findings from laboratory, immersive, field, and clinical contexts. It summarizes patterns in brain rhythms, large-scale connectivity, and autonomic indices during exposure to natural versus built settings, and explains why results vary across methods, tasks, and samples. Benefits arise from bottom-up sensory statistics that align with human priors, as well as from top-down appraisal, expectations, and goals. Designs for separating these pathways are outlined. Practical implications are drawn for experimental design, environmental planning, and health applications. Open questions are identified to guide future work. The objective is to provide a map of psychophysiological effects and testable mechanisms, and attempt to understand how these observed effects may help guide theoretical development.

Public participation and acceptance for protected areas in Norway

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In Norway, establishment and expansion of protected areas require public participation and local acceptance. To ensure diversity in nature conservation processes and decision-making, it is essential to understand who wants to participate, how they want to participate and what factors influence these preferences. This study explores variations in the Norwegian public's preferences to be engaged in conservation processes. It examines how this relates to people's attitudes- and acceptance towards protected areas, trust in information from both institutional- and non-institutional actors and perceptions of decision-making authority. Based on a national survey of the Norwegian population (N= 2 091), the findings indicate differences among the respondents' preferred modes of participation in processes regarding establishment of protected areas, and the connections between attitudes, acceptance, and trust. These findings have implications for the future of public participation in conservation and will play an important role in designing inclusive and deliberative processes that reflect diverse public perspectives.

Perceptions and pathways: Linking biodiversity to health and well-being in lower-income contexts

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We are living in a ‘polycrisis’ era, where the worsening state of, among others, biodiversity, human health and well-being are deeply interconnected. Evidence suggests that there are opportunities to address these crises simultaneously. However, to do so, we need a more complete understanding of whether and how biodiversity and human health and well-being are linked. There is thus a need to revisit and update existing theoretical frameworks that explore the relationship between biodiversity and human well-being. While these frameworks have been valuable, they are predominantly based on high-income contexts, potentially limiting their applicability to much of the world.

To address this gap, we conducted research in Accra, Ghana, investigating how urban biodiversity influences health and well-being. Using photovoice, we engaged 36 participants to investigate perceptions of local biodiversity and its impact on well-being.

The resulting data were coded both using emergent and a priori codes based on existing frameworks. We found that biodiversity interacts with multiple domains of health and well-being through four pathways (‘reducing harm’, ‘building capacities’, ‘restoring capacities’, and ‘causing harm’) that easily align with existing framings.

However, we also observed two additional pathways (‘spirituality’ and ‘livelihood support’), both of which may have greater prominence in lower-income contexts. Integrating these pathways into our understanding of how biodiversity influences health and well-being contributes to a more inclusive framework that reflects the socioeconomic and cultural diversity of rapidly urbanising regions in low- and middle-income regions.

Such a framework is essential for informing policy and practice in a way that benefits a broader range of communities, and thus, potentially, better allows us to address health and biodiversity crises together.

We present an adapted framework that integrates these pathways, offering a context-sensitive model to guide future research, urban policy, and biodiversity conservation efforts. This approach can better align health and environmental goals in rapidly urbanising, lower-income regions.

Exploration of Planetary Health Approaches in Urban Areas - A Scoping Review

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Human activities on earth result in global disturbances of natural systems that manifest as natural resource exploitation, pollution, climate change and biodiversity loss which negatively impact human health in turn. In response, the concept of Planetary Health (PH) has emerged, recognizing the need for a systemic understanding of interconnectedness between human health and that of the natural systems on which it depends. Cities constitute a relevant ground for health interventions as they are currently home to more than half of the world's population and paradoxically also among the most vulnerable locations for the impact of human-induced PH pressures. Despite its growing scientific prominence, the field of PH lacks in action-based research. Therefore, this review seeks to map the existing evidence of approaches that operationalize the planetary health concept, and its application across urban contexts. It illuminates entry points and provides guidance for PH researchers, educators, local governments and urban planners in the pursuit of operationalizing PH in urban areas. A literature search for peer-reviewed publications was conducted across 7 databases, using the keyword "Planetary Health" which resulted in 2918 unique records for the screening phase. Using the PRISMA-ScR extension guidelines a team of 3 researchers identified 31 articles for the final synthesis. The included papers consist of various types of research investigating how the concept of PH can be operationalized in urban areas. Some approaches are associated with PHs conceptual foundations in the form of frameworks, literacy/ education models and practices, as well as the formulation of measurement and evaluation methods. Then there are applied approaches, consisting of interdisciplinary PH research-projects, diverse case studies and papers that examine PH's application potential within policy. Among the heterogeneous application of the concept across a diversity of contexts, the review identified several best practices, draws out present conceptual and research limitations, as well as challenges and opportunities for embedding the concept across diverse disciplines and as part of various urban interventions.

Empathy and Pro-Environmental Behaviour in Children

Sareh Tayyebi

Leiden University

Empathy, encompassing cognitive and affective dimensions, has been posited as a significant driver of pro-environmental behavior (PEB) in children. This narrative literature review explores the potential of empathy to foster environmental care, addressing the limitations of traditional approaches such as policy regulations and economic incentives. Critics argue that empathy can lead to biased decision-making and emotional distress. However, research indicates that social-emotional learning (SEL) programs and environmental education can cultivate both cognitive and affective empathy, thereby promoting PEB from an early age. Despite potential barriers such as cultural attitudes and cognitive biases, the extension of empathy beyond human interactions to include the natural world is crucial. This review underscores the need for balanced emotional engagement and Rational analysis in promoting PEB suggests that integrating empathy into our A relationship with nature can foster a more compassionate and environmentally conscious society.

The Future That Moves Us: Pinpointing a Motivating Time Horizon for Sustainable Action

Isabel Richter

NTNU

When do future scenarios feel close enough to spark action yet far enough to permit meaningful change? This study investigates the “cognitive sweet spot” in future time horizons that best motivates pro-environmental behavior. Using a cross-cultural online survey deployed in six countries spanning multiple world regions for global coverage, participants first marked (via calendar input) a naturally imagined future point and then the specific future date at which a personally compelling, more sustainable lifestyle felt most motivating to start acting today. We additionally measured Future Time Perspective (FTP), Consideration of Future Consequences (CFC), environmental values, and individual cultural orientation. The first findings will be presented at this conference. The results highlight meaningful cross-cultural variation, offering practical guidance for designing future scenarios and campaigns that convert long-term goals into near-term action.

Exploring Nature Relationships: Scale Development

Cassandra Murphy, Elaine Gallagher & Tadhg MacIntyre

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Human-nature interactions play a crucial role in supporting physical and mental health, with time spent in natural environments recognised as a key determinant of wellbeing. Understanding how these interactions promote urban health has been a central goal of the H2020 GoGreenRoutes project. A core element of this understanding is people's subjective experience of their connection to nature, often captured through the concept of nature connectedness. Grounded in Wilson's (1984) biophilia hypothesis, which proposes that humans possess an innate tendency to seek bonds with the natural world, nature connectedness has been associated with greater wellbeing and pro-environmental behaviours. Despite these benefits, urbanisation has contributed to declining connections with nature, and recent global events, such as the COVID-19 pandemic, have prompted a renewed engagement with natural spaces. However, the extent to which this resurgence has fostered lasting nature connectedness remains unclear. This project seeks to investigate the ways in which a sense of connection with nature can be nurtured and the relationship between connectedness and diverse forms of nature interaction, including digital engagement and direct visits. To achieve this, a novel Nature Relationship construct and measurement tool were developed by employing a modified Delphi framework to define key dimensions, followed by test validation using factor analysis on an international convenience samples (N=208). The ultimate aim is to provide a robust understanding of the nature relationship in the 21st century, enabling strategies to support individuals in rebuilding their connection with the natural world. By doing so, we aim to enhance both human health and environmental stewardship in increasingly urbanised societies.

Are children in nature preschools in Northern Norway more connected to nature? And how to measure that?

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UiT The Arctic University of Norway

While there is an emphasis in Nordic countries on spending time in nature and preschoolers usually spend extended periods of time outside, more research is necessary to assess Nordic children's connection to nature. In our research we would like to address different standardized formats that have been used to assess nature connections with young children (Cheng & Monroe, 2012; Rice & Torquati, 2013) and report on results and experiences with the methods in Northern Norway. We would also like to address whether children who attend a nature preschool feel more connected to nature. Research from Finland suggests that children in nature preschools feel more connected to nature, however the difference is less pronounced than expected (Savolainen, 2021).

Our research shows no differences between preschoolers from different types of institutions. We discuss how the fact that the measurements have been developed in places with different social structures, cultural values and climatic conditions may influence their validity.

The Impact of Seasonal Theme and Time of Year on Outcomes of Virtual Nature Exposure: A Randomized Trial

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Immersive Virtual Nature (IVN) has emerged as a promising tool to promote well-being and nature connectedness. However, little is known about potential seasonal influences, either in relation to the seasonal theme of the virtual scenario or the time of year when exposure occurs. This study investigated the extent to which the seasonal theme and timing of exposure influence the psychological outcomes of a brief IVN experience.

A total of 108 university students (64% female; age = 25.7 ± 7.3 years) were recruited in early spring (March 18 – April 9) or early autumn (September 28 – October 17), periods characterized by comparable environmental conditions and academic workload. Within each period, participants viewed a 3-minute 360° video of a local urban forest, presented in either a summer (“green”) or winter (“white”) version. Outcomes included affect (positive affect, negative affect, tranquillity, and fatigue), perceived stress, nature connectedness, intention to perform green exercise, and intention to visit the location. Two-way ANOVA with post hoc analysis was used to test for possible pre-post changes and their interactions with theme (green vs. white) and period (spring vs. autumn).

Significant pre-post improvements were found for all outcomes except positive affect and intention to perform green exercise. No significant pre-post by theme interactions were observed. A significant pre-post by period interaction was found for perceived stress ($F(1,104) = 7.32$; $p = 0.008$), with greater reductions in early spring compared to early autumn. No other significant pre-post by period interaction was found.

A brief IVN experience can elicit beneficial psychological responses regardless of the seasonal theme depicted. However, the magnitude of some responses may vary across the year. Further research is needed to clarify patterns of seasonal variation in IVN experiences. This study advances the understanding of IVN as a medium for promoting well-being and nature connectedness.

Pathways to restorative natural soundscapes

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Soundscapes from natural areas are an important cultural ecosystem service that can promote greater mental health and well-being. However, the mechanistic and mediating pathways by which this occurs are not yet fully understood, limiting their integration into ecosystem service frameworks. We addressed this gap by examining a range of mediating pathways, including perceived restorativeness, perceived stress and awe, between subjective and objective measures of natural soundscapes and well-being. To achieve this we conducted online surveys in which a representative UK sample (N=1529) of participants listened to soundscape samples that differed in levels of three acoustic properties (complexity, amplitude, intensity) and responded to measures of subjective well-being and perceived restorative outcomes. Perceptions of bird diversity within soundscapes and a range of socio-demographic covariates were also assessed. Results indicated the relationship between perceived bird diversity and well-being was mediated by greater perceived restorative qualities of the soundscape, reduced perceived stress and a greater sense of awe. Soundscapes with moderate levels of acoustic complexity and higher amplitude displayed an indirect effect on well-being via a double mediation pathway: first through greater perceptions of bird diversity and then either greater perceived restorativeness, reduced perceived stress or increase awe. These results provide new insights into how natural soundscapes can deliver well-being benefits and can inform the management and valuation of soundscapes in natural areas.