Osler, L., Engelen, B., & Archer, A. (forthcoming). The ethics and politics of nudges and niches. In Preventing Crime by Exclusion: Ethical Considerations. Eds. T Søbirk Petersen, Sebastian Jon Holmen, and Jesper Ryberg. Routledge.

The Ethics and Politics of Nudges and Niches: A Critical Analysis of Exclusionary Environmental Designs

Lucy Osler
https://orcid.org/0000-0002-6347-8381
Bart Engelen
https://orcid.org/0000-0002-8915-9768
Alfred Archer
https://orcid.org/0000-0001-9398-6427 [1]

Abstract

This chapter critically analyses the ethical and political dimensions of supposedly subtle and non-coercive interventions that aim to 'prevent crime' through environmental designs making certain public spaces less attractive for specific groups. Examples include benches designed to discourage sleeping (targeted at homeless people), high-pitched noises or classical music played to deter lingering (targeted at youngsters), and specific lighting to prevent aggression (targeted at nightlife). While these interventions may appear less problematic than more traditional exclusionary measures, they raise ethical and political worries that come into view clearly when we analyse them as instances of nudging on the one hand and niche construction and affective scaffolding on the other. Employing this approach reveals how these exclusionary environmental designs not only risk reinforcing problematic stereotypes and social inequalities and discipline rather than prevent crime, they also can alienate specific groups, constitute affective injustices, and inflexibly reduce the diverse purposes public spaces potentially have. The chapter argues that environments are never neutral as they inevitably support and encourage some bodies, behaviours, moods, and emotions while suppressing and discouraging others.

[1] Lucy Osler is a Lecturer at the School of English, Communication and Philosophy, at Cardiff University
Bart Engelen is an Associate Professor at Tilburg Center for Moral Philosophy, Epistemology and Philosophy of Science at Tilburg University
Alfred Archer is an Associate Professor at Tilburg Center for Moral Philosophy, Epistemology and Philosophy of Science at Tilburg University

Osler, L., Engelen, B., & Archer, A. (forthcoming). The ethics and politics of nudges and niches. In Preventing Crime by Exclusion: Ethical Considerations. Eds. T Søbirk Petersen, Sebastian Jon Holmen, and Jesper Ryberg. Routledge.

Keywords

Nudging, niche construction, affective scaffolding, affective injustice, exclusion, spatial agency.

"Caught up in a world of uphill climbing
The tears are in my mind and nothing is rhyming, oh Brandy"
Scott English, 'Brandy', 1971 (later rerecorded by Barry Manilow as 'Mandy', 1974)

1. Introduction

An increasingly popular way in which both (local and national) governments and private developers try to increase public safety and reduce crime rates is the deliberate (re)designing of spaces in ways that subtly but predictably discourage specific kinds of behaviour from those specific groups of people that are deemed likely to engage in such behaviour.

In Nelson, a suburb of Sydney, Australia, the police and city council used what they called the 'Manilow Method' to discourage teenagers from loitering in an inner city carpark. By playing Barry Manilow and other easy listening songs through loudspeakers at the places where teenagers gathered, they managed to stop the youngsters from hanging out there (Capers, 2009, p. 761; Hirsch, 2012, p. 13). The city of Eindhoven, in The Netherlands, experimented successfully with smart street lighting, where real-time information was collected in places known for nightlife disturbance. This data was used to predict and steer people's behaviour by changing the (colour and intensity of the) lighting in those areas such that people would be less likely to be aggressive or more likely to take another route (Ranchordás, 2020, p. 265).

Through the smart use of lighting, sounds, and smells, but also physical interventions, those (in charge of) designing spaces can prevent crime by targeting specific groups and making certain behaviours in those spaces less attractive. In this chapter, we discuss and analyse examples of such subtle non-coercive interventions and conceptualise them as instances of 'nudges' and (constructing) 'niches'. While these interventions can seem relatively benign – after all, they non-

coercively prevent people from committing criminal behaviour – we identify a range of key ethical concerns they raise.

The aim of this chapter is two-fold, namely to acquire a clearer understanding of: 1) how these subtle interventions work; and, 2) the ethical and political worries they raise. In Section 2, we zoom in on a number of paradigmatic examples of the kind of group-targeting interventions in the design of public spaces that we have in mind. In Section 3, we conceptualise them as 'nudges' to get a better understanding of how they work and what makes them both appealing and worrying. We argue that viewing these interventions as nudges has limitations and that to get a fuller picture of the moral wrongs they entail we need to draw on other literatures. In Section 4, we set out an overview of some of the relevant insights found in the literature on 'niche construction' and 'affective scaffolding' to show how environments can scaffold but also disrupt people's (spatial) agency and affectivity. In section 5, we conceptualise the interventions at hand as 'niche alterations' and, in section 6, draw out the normative implications of viewing these interventions as constructing and altering 'niches', including the concern that in certain circumstances they can lead to affective injustices. In this key section, while we analyse the potential moral wrongs they entail, we do so without aiming or claiming to provide an overall ethical assessment, which should include a much wider range of ethical considerations, including the potential benefits they have, which partly depend on the extent to which they effectively prevent crime or other harms.[1] The main claim here is that environmental design is never neutral as it inevitably supports and encourages some bodies, behaviours, and affects while suppressing and discouraging others.

2. Examples of 'exclusionary environmental design'

Each of the interventions outlined above can be labelled as an instance of 'exclusionary environmental design', where one aims to prevent crime (or other harms or nuisances) by deliberately (re)designing the spaces and environments that influence how people behave in ways so as to exclude specific groups from those spaces. It builds on what is known as 'crime prevention through environmental design', or CPTED: an approach developed in the United States in the early 1970's by criminologist C. Ray Jeffery (1971) – who also coined the term – and architect Oscar

Newman (1972). The idea was that criminal behaviour can be prevented by redesigning environments so as to increase – among potential criminals – the perceived chance of being caught (rather than the crime's expected ease or reward) (Crowe & Fennelly, 2013). By deliberately redesigning streets, squares, parking lots, et cetera, the aim was to enable and harness social control or what has been labelled 'natural surveillance'. One can, for example, improve the visibility of potential offenders with strategically placed windows that overlook potential points of entry or exit, or with curved streets that enable multiple viewpoints and make escape routes harder, or with the right kind of lighting at proper heights to ensure that people can easily see each other's faces, et cetera. A meta-analysis of such CPTED strategies in the US found that they decreased robberies between 30 and 84% (Casteel & Peek-Asa, 2000).

Along these lines, novel interventions have been developed and implemented in which empirical insights into the many ways in which environmental design influences people's behaviours are put to use in deliberate attempts to encourage or discourage specific behaviours from specific groups of people. Let us discuss a number of paradigmatic examples of the kind of interventions we have in mind. For each of these, we explicitly discuss not only when and how they are implemented but also which groups and which behaviours they target, which techniques they employ, and which (physical, psychological, social, emotional) mechanisms they invoke or rely on. Often, the aim of such interventions is to steer specifically targeted groups (drug dealers, homeless people, youngsters, et cetera) away from specific spaces. Instead of simply fencing off a space or enforcing legal rules, for example against trespassing property, these interventions more subtly steer people, for example by means of *auditory*, *visual or olfactory* signs and signals, such as sounds, lighting, colours, and smells. We discuss these first, before moving onto changes in *physical* environments. A*uditory* interventions have been used in a variety of ways in attempts to reduce crime. One approach, suggested by the Greater London Authority Conservatives, is to play classical music in railway stations and hospitals with the aim of making people calmer and reduce the number of assaults on staff as a result. The intention is to create "a calming effect by releasing pleasure-inducing dopamine and inhibiting the release of stress hormones" (Dutta, 2014). This intervention

arguably does not coerce people in any way but subtly influences their moods in order to reduce levels of anger, with the hope that this leads to a reduction in violent crime.

The same intervention can be implemented to achieve the same goal in a different way. Rather than trying to influence the behaviour of people occupying a place, music may also be played with the aim of discouraging certain groups of people from gathering in that place. The 'Manilow Method', as mentioned above, was implemented by Nelson police and city council who wanted to discourage teenagers from loitering in an inner city carpark, revving their engines noisily and playing loud music. As the deputy mayor Bill Saravinovski explained, they deliberately chose music that they thought, "doesn't appeal to these people" (cited in Hirsch, 2012, p. 12). It worked: the teenagers soon stopped gathering there (Capers, 2009, p. 761; Hirsch, 2012, p. 13). Similarly, the London Underground decided in 2003 to play classical music at its Elm Park in an attempt to reduce crime. The aim was to discourage young people from gathering in the station with the hope that this would reduce crime as a result. On the face of it, this project was a success as it resulted in a 33% reduction in robberies, a 25% reduction on assaults against staff, and a 37% reduction in vandalism (Duchen, 2008). This approach was inspired by a similar intervention on a metro near Newcastle in the late 1990s. As Mike Palmer, the director of the company running the metro, explained: "The aim is not to soothe but to provide a background of music that people who we are aiming at don't actually like and so they move away" (BBC News, 1998).

Other auditory interventions are slightly more intrusive. In 2018, the German Rail operator Deutsche Bahn announced plans to play atonal music at Berlin's Hermanstrasse station to discourage people from using the station to take drugs. This music was chosen not simply because it was judged to be not to the taste of the target audience but because of its unsettling psychological effects: "Few people find it beautiful — many people perceive it as something to run away from" (Knight, 2018). These plans were subject to widespread criticism and later abandoned. Even more intrusive are the use of 'Mosquito' sound devices that emit a painful, high-pitched noise that can generally only be heard by people under the age of 25. In 2019, it was reported that Philadelphia's Parks and Recreation department had installed these devices at around 30 city parks with the aim of discouraging young people from gathering there (Katro, 2019). In this case, the auditory

intervention not only made the space unattractive but also a physically painful and distressing place to inhabit for youngsters.[2]

Moving from auditory to *visual* interventions, we can turn to the city of Eindhoven in The Netherlands. Local government teamed up with behavioural scientists to fit a popular nightlife street with cameras, microphones, and other trackers. When these detected aggression, the intensity of the street lighting automatically adjusted with the aim of either making them calmer or encouraging them to take a particular route (Hoogeveen et al., 2018; Ranchordas, 2020, p. 256). Eindhoven also has plans to experiment with emitting scents designed to make people less aggressive (Ranchordas, 2020, p. 256; Doorman & Pali, 2021, p. 91). Such *olfactory* interventions are based on recent findings that smells can be effective tools for behavioural change. Exposing people to the smell of citrus, for example, has been shown to reduce littering in train carriages (de Lange et al., 2012).

Another inventive but painful visual intervention aimed at discouraging people from inhabiting spaces does so by making the people more unattractive instead of those spaces. Certain fluorescent lights or 'blacklights', for example, can make acne – for which teenagers often feel embarrassed and ashamed – more visible (Dyer & Foy, 2022), so these can be used to discourage teens from showing up or lingering in specific spaces.

Moving onto *physical* interventions, i.e. deliberate changes in *physical* (choice) architectures, obvious examples are the (re)design of benches to make sleeping or resting uncomfortable or even impossible in an attempt to drive out homeless people from parks or bus stops. Robert Rosenberger discusses quite a few of such examples – from parks to trashcans – of how cities use specific designs to target homeless people specifically in his book *Callous Objects: Designs against the Homeless* (Rosenberger, 2017). Or think of St. Mary's Cathedral in San Francisco, which installed a system that splashes water every hour to keep homeless people away from an alcove (Westcott, 2015).

Besides this categorization in terms of the different aspects of environments that can be deliberately designed (auditory, visual, olfactory, physical), involving different mechanisms that influence people's behaviours, two other distinctions can help provide a better understanding of the range of interventions at play here.

First, there are different degrees in which these interventions are exclusionary, i.e. specifically exclude specific groups of people from specific spaces. This depends on their coerciveness (something we will return to in Section 3 below), their intrusiveness, and the extent to which they are specifically targeted at (excluding) specific groups. Interventions can target everyone in a specific space (like atonal music does) or only a subset of people (like the Mosquito device does). Most of the interventions here are targeted specifically at people who (have reasons to) use or inhabit a specific space (and so do not affect those who do not need those spaces). The interventions that are targeted at one such specific group also vary in how discriminatory they are within that group. While nearly all youngsters suffer from high-pitched sounds, for example, perhaps some can stand Barry Manilow. Others are targeted more specifically at detecting and steering specific kinds of behaviour, like the Eindhoven trackers, which supposedly pick up on signs of aggression. Others are aimed at preventing or discouraging behaviours that are assumed to be more likely performed by specific groups of people (like homeless people looking for places to sleep or rest).

Second, there are different kinds of aims these interventions intend. There is the obvious (ultimate) aim of preventing crime, which often aligns with but does not necessarily overlap with the aim of disciplining (specific groups of) people. In addition, there are a lot of different intermediate aims that such interventions hope to achieve. Interventions can facilitate, encourage, and promote certain forms of behaviour and affective responses, while others discourage certain behaviours and affective responses. Some interventions aim to do so by making certain places aesthetically unattractive for certain people, while others aim to make those harder to reach[3] or even uninhabitable.

3. Lessons from the literature on nudges

In recent years, newly gained insights from psychologists and behavioural scientists and rapid developments in technology have led to ever more refined and better researched environmental designs. Since Richard Thaler and Cass Sunstein published their book 'Nudge' in 2008, 'nudging' has become increasingly popular. The idea behind nudging is to use these psychological and behavioural insights in an attempt to subtly steer people's behaviour. Nudges consist in deliberate tweaks to people's so-called 'choice architectures': the environments in which people make decisions and that partly influence those decisions. Nudges do so by triggering or tapping into deeply rooted psychological, cognitive, and emotional processes, studied by these scientists, which influence behaviour in ways we are largely unaware of. Nudges are not coercive in the conventional sense of the word as they leave different options intact but make some less likely to be picked by making them less salient, less attractive, or marginally more costly (in terms of effort needed).

While the nudge literature traditionally focused on nudges that are 'paternalistic' in nature and that aim to promote the interests of those being nudged, more attention has recently paid to nudges that (aim to) steer towards more prosocial or civic behaviour and away from behaviours that harm others. Only very recently has nudging been explicitly discussed as a tool for crime prevention. Sas and co-authors (2022), for example, studied the effects of placing well-designed stickers to improve the ways in which cyclists lock their bikes.

That said, most of the examples discussed above actually qualify as 'nudges'. This fits the general observation that nudging techniques have existed long before they were labelled as such. Think of the tricks that marketers and salespeople pull when they try to influence (potential) consumers: these count as nudges even before this label came into being. Nudges for crime prevention, then, have been actively implemented for a while now, even if not framed as such.

Take the above auditory interventions, like playing Bach or Manilow, to deter youngsters from hanging out in specific places. These are fairly clear examples of nudges, as they do not coerce people but have a predictable effect on behaviour by changing people's (choice) environments and

tapping into their less reflective psychological processes. Instead of coercing, banning, incentivizing, informing, or rationally persuading them to move somewhere else, they tap into other psychological and emotional mechanisms that subtly influence people's behaviour. The same goes for the visual (smart lighting) and olfactory interventions (lemon scent) we discussed before. So what are the ethical implications of viewing these interventions as nudges? What can we learn from the 'ethics of nudging' literature when it comes to ethically evaluating the kinds of environmental interventions at stake here?

A substantial part of this literature stresses the rationale behind such interventions: they are cheap, scientifically informed, (more) effective (than campaigns, for example, that inform people about risks and chances of being caught), and less coercive (than interventions that physically close off certain spaces or than mandates that forbid certain behaviours or laws that are enforced with substantial fines) (Schmidt & Engelen, 2020; Sunstein, 2016; Thaler & Sunstein, 2021). Nudges can be implemented in more targeted ways than other, more coercive, measures, like physically closing off certain spaces. If there is indeed a positive correlation between a specific group of people (like youngsters) and specific crimes (like littering, drug dealing, noise polluting), then nudging those groups specifically solves the problem without unnecessarily restricting the liberties of those and other groups.

The literature also highlights worries that arguably arise with nudges. These mostly revolve around their lack of transparency (Bovens, 2009), the objection that they arguably manipulate people (Hausman & Welch, 2010) and undermine or violate their autonomy (Engelen & Nys, 2019), and the fact that they can be used for illicit ends (Schmidt & Engelen, 2020; Sunstein, 2016). Applied to the cases at hand, the objections would then be that the people targeted by and exposed to these interventions are no longer able to make their own, autonomous choices and that, hence, they can steer people in directions that they do not endorse. Nudges then arguably influence people behind their backs, in covert and sneaky ways that are not entirely clear to them and that shape their behaviour without them having proper control over this.

While these are legitimate worries, we want to stress four other worries that we think are actually more pertinent when ethically evaluating the exclusionary environmental designs at stake. We list these worries here and develop them further in the next two sections. In our view, these worries only come into clear focus when we view these interventions not through the lens of nudges but through the lens of niches.

First, there is the issue to what extent these interventions are indeed uncoercive, easily resistible, and respectful of people's liberties. These aspects are what makes interventions nudges and what makes those interventions appealing. As such, the question is whether they also apply to the interventions we have introduced above. If they don't – if these interventions are actually coercive, hard to resist, and disrespectful of people's liberties – then they cease to be nudges and the 'ethics of nudging' literature turns moot. Take the auditory interventions of playing atonal music or high-pitched sounds. These interventions are actually quite hard to ignore, resist, or circumvent and, thus, work more like 'shoves' than like 'nudges'. As such, they are not in any meaningful sense 'easily resistible' (Saghai, 2013) or 'choice-preserving' (Sunstein, 2014), which are key aspects of what it means to be a nudge. So, if one wants to understand (the wrongs entailed by) these interventions, which we aim to do, we need to move beyond the nudge literature.

In other words, there are different degrees of coerciveness and different extents to which interventions are easily resistible and choice-preserving. This depends on the intrusiveness of the intervention, the (psychological, emotional, social and other) costs it brings about amongst targeted people, and the availability of alternatives (for example, how readily available other spaces are that serve the same purpose). Instead of trying to establish a threshold of coerciveness and limiting our analysis to those examples that meet this and thus qualify as nudges, we want to include all of the above examples in our analysis, including those that more likely qualify as shoves or even coercion.

Second, there is the interesting fact that the 'ethics of nudging' literature doesn't really consider a key aspect of nudges, which is that they consist in deliberate redesigns of people's (choice) *environments.* There is no explicit discussion of the ways in which environments matter to people,

what value there is in feeling at home in certain environments, and being able to rely on those environments. Most authors in this literature approach this rather instrumentally, analysing the extent to which nudges promote, thwart, or violate relevant values, like people's well-being, people's autonomy, worthwhile policy aims, et cetera.[4] There is hardly any fundamental reflection on what it means to inhabit environments and in what way tweaking them affects our lives.

Third, the literature on nudges largely overlooks the long-term impact of being exposed to a wide range of nudges, i.e. to environments infused with nudge interventions. While there is some critical discussion on "nudge stacking" (Ivanković & Engelen, 2024) and on what it would mean to live in a "nudge world" (Waldron, 2014), the prevailing literature mostly considers (instances of) nudges in isolation. What are the effects if we redesign this one cafeteria, this one website, or this one policy default? What exactly the long-term impact is on people when they are confronted with nudge-infused public environments remains underdeveloped.

Fourth, little attention in the ethics of nudging literature is paid to the affective aspect of (a lot of) nudge interventions (for one exception, see: Thunström, 2019.) According to Nara Rela (2023, p. 769), this is due to the fact that nudges arose from and are typically considered within the framework of behavioural economics: "As nudges are based on behavioral economics, which, in turn, are based on latent preferences, the choice architect does not consider emotions as directly influencing decision-making". Typically, nudges are understood as triggering and invoking *cognitive* heuristics and biases and *perceptual* processes. However, a lot of nudges also invoke *affective* responses and influence behaviour not via cognitive or perceptual shortcuts but by changing people's emotions, moods, et cetera. Think of pictures on cigarette packages that trigger disgust or colours or music that predictably make people more (or less) happy or sad. Many of the interventions we focus on here deliberately (aim to) make people emotionally uncomfortable, frustrated, or fearful (e.g., of social or legal sanctions if they know they are being watched). Since these emotional responses are often at least as effective when it comes to steering and shaping people's behaviours, one can see why nudgers might be tempted to trigger them. That said, their affective nature raises additional worries that the nudge literature notably overlooks.

In what follows, then, we argue: 1) that the interventions at stake are not as liberty-preserving as nudges (definitionally and ideally) are; 2) that the environments we inhabit matter to us in important ways; 3) that tweaks to those environments risk harming us and our agency in ways that the 'ethics of nudging' literature fails to discuss; and, 4) that part of the reason for this lies in their distinctly affective nature.

4. Lessons from the literature on niches

To get a clearer view of the wrongs that these physical, visual, auditory, and olfactory interventions entail, we thus move beyond the literature on nudges to that of niches. A niche can be understood as a space that is altered, even designed and constructed, in order to support the needs, cognition, affectivity, and agency of the people that inhabit it. Though, as will become clear, niches can also work to hamper and even harm their inhabitants.

In 4E (embodied, embedded, extended, and enactive) approaches to cognition, there has been growing interest in the ways that cognition does not simply take place 'in the head' of an agent but is supported or scaffolded by an agent's environment. Drawing on ecological psychology, Kim Sterelny (2010) points out that organisms not only evolve to adapt to environments, but they adapt environments to support their own needs. Sterelny describes how organisms can adapt an environment to their physical needs, such as making nests, burrows, and condos to keep them safe and warm. But organisms can also make adaptations that scaffold epistemic and cognitive abilities, such as ants leaving and using scent-trails to way-find, or humans using pen and paper to carry out complicated calculations or digital technologies to store photos and support their (faulty) memories. This process of manipulating environmental spaces to support various needs and desires of an agent is described as 'niche construction'.

Niches also scaffold our *affective* lives (Colombetti & Krueger, 2014; Coninx & Stephan, 2021; Krueger & Osler, 2019; Maiese, 2016). Just as we use and adapt environments to support cognitive or epistemic tasks, so we employ environmental resources to augment and support our affective experiences. Think of putting on music to lighten one's mood, snuggling into a cosy blanket to

comfort oneself, painting or playing an instrument to help express and augment one's emotional state, and going online to connect with one's best friend in Denmark. We construct niches, such as our bedrooms or offices, to support our affective states.

Quill Kukla (2021) more broadly describes how niches influence one's spatial agency. An agent's spatial agency is their ability to inhabit, move through, and use space. Niches shape how we bodily comport ourselves and interact with the space around us. For instance, objects can be placed in prominent places to draw us to them, or placed in specific ways with the aim of influencing how we engage with them. How someone moves in and uses the space of a cosy cafe is different from how they navigate a museum or a court of law, and this, in part, is impacted by the material organisation of such places. David Seamon (1980) poetically speaks of the way environments create "place-ballets".

Niches, then, can provide a variety of scaffolds for a variety of purposes. Moreover, inhabiting our niches not only supports various tasks and experiences in the present moment but also diachronically shapes our embodied habits and practices and sediments how we engage with our environments (Colombetti & Krueger, 2014; Maiese & Hanna, 2019; Kukla, 2021). Over time and through use, we typically build an *affective trust* in our niches, taking it for granted that we can nestle into our environments and rely on them to support our activities, needs, and capabilities (Krueger & Colombetti, 2018; Kukla, 2021). We come to feel familiar with and at home in our niches. We depend upon and trust in the fact that we will be able to focus when we are in our office or relax when we come home. A niche, then, not only can support and shape specific affective experiences in that space but inhabiting a niche can itself have an affective quality of familiarity and trust.

While we can construct some niches ourselves, we also inherit niches designed and constructed by others (Coninx & Stephan, 2021; Sterelny, 2010). Think of how we inherit the city we live in: the roads, signs, and buildings that guide us and influence how we move through space; the libraries, museums, parks, and public art that support and regulate our cognition, emotions and moods. Cities

scaffold us in different ways: they can create an industrious atmosphere scaffolding busy activity or a slower more contemplative pace of life. Niches are socio-culturally and, as we discuss below, politically saturated. We are not born into neutral spaces but born into rich niches that we, in turn, can continue to adapt and alter. Niches, then, can be constructed through bottom-up interventions but also via top-down forces.

Thinking about how we inherit niches helps bring to the fore that we do not only adapt our environments for our own ends but that environments also act upon us in ways that influence, shape, and sustain our behaviours and capacities. As Andy Clark (2003, p. 11) puts it: "We create these supportive environments, but they create us too". By inhabiting and engaging with niches, they come to shape us in various ways, especially when we inhabit those niches for a long period of time. Attending university, for example, not only provides us with resources to augment our cognitive, epistemic, and affective goals (think of libraries, science labs, cafes, and so on). Inhabiting a university impacts us: we become immersed in particular practices and routines that dynamically mould our actions, feelings, values, and norms (Maiese 2021).

We must be careful to not present scaffolding and niches as inherently positive.[5] Niches can also scaffold ways of being, thinking, and feeling that are harmful. External structures can promote certain habits and forms of life that undermine our flourishing or well-being. For instance, corporate environments that scaffold a culture of being 'always on' (Slaby, 2016), practices for managing chronic pain that in the long-term might be damaging (Coninx, 2023), and environments that do not support children or people with Down's Syndrome or autism (de Carvalho & Krueger, 2023; Krueger, 2023), or that scaffold substance addiction (Lavallee & Osler, forthcoming). Sometimes this harm arises without explicit intention, sometimes niches are deliberately designed to manipulate agents in favour of the person in control of those niches, such as when casinos foster environments that promote and sustain addictive activities (Timms, 2022; Timms & Spurrett, 2023), which are also prominent examples of what have been called "dark nudges" (Petticrew et al., 2020).

Many of the harms caused by niches stem from imbalances in power, privilege, and standing. Niches rarely fit all minds and bodies equally, sometimes even being entirely inaccessible to various individuals and groups. Sara Ahmed (2007), for example, calls attention to the way that non-white bodies are often "stopped" in space by both objects and others. This can occur, for instance, when objects are designed around whiteness as the norm, such as soap dispensers or facial recognition software that don't respond to darker skin tones (Liao & Huebner, 2021). This organisation of space around white bodies is just one way that whiteness itself becomes normalised and institutionalised and impacts the ability of non-white bodies to feel at home in various niches. In this way, we can see how niches can be more than just harmful, but can be part of wider systemic injustice and oppression.

After arguing that the interventions we are considering here are plausibly understood as niche alterations (section 5), we further detail the wrongs and injustices they entail (section 6). For now, it is important to see that niches are normatively and politically saturated. They are designed around, and therefore perpetuate, various social norms, fitting some bodies better than others, and others not at all. They can be, and often are, powerful arbiters of inclusion and exclusion.

The literature on niches and scaffolding thus highlights that we are deeply entangled with the environments we inhabit. We alter our environments and they alter us. This captures important ways that environments matter to us, not simply in terms of our affection for them, but as crucial supports for thinking, feeling, and acting. Thinking about environmental designs as forms of niche construction, destruction and alteration pushes us to consider the ways in which environmental designs impact on people's cognition, agency, affectivity, and well-being (in ways that thinking about these as nudges does not). Moreover, it pushes us to consider for whom spaces are being designed, who they are being designed by, and who is losing out as a result of these interventions.

5. Exclusionary environmental designs as niche alterations

We can clearly see how the forms of exclusionary environmental design considered in section 2 amount to niche alterations. Each of the examples we introduced involves top-down changes made

to environments that aim at manipulating the behaviour, agency, and affectivity of (some of) those who enter those environments.

Some of the interventions work to exclude people from occupying a particular niche. The playing of 'Mosquito' sounds that are painful for youngsters are clearly a way of sculpting a niche that aims to deliberately exclude the presence of young people. By filling a space with sounds that are distressing to be around, the environment is designed to be both physically and affectively uncomfortable for young people to be in. This is not simply a case of a niche not fitting all bodies but a niche being made with the express intention of repelling particular bodies. Very much like walls, fences, and visual signs of exclusion, they basically close off the space to certain bodies. The proposed playing of atonal music at Hermanstrasse station may seem slightly less intrusive and targeted than 'Mosquito' sounds but it definitely shrinks the temporal window in which this niche can be comfortably inhabited. As people linger, the discomfort produced by this music intensifies, rendering the station an affectively disruptive niche and working to expel people from spending too much time in this space.

Other interventions work by explicitly deterring specific ways of acting in a niche. This can occur through top-down manipulations of space that remove certain action-possibilities. Many of the designs which aim to discourage the presence of homeless people work in this fashion. For instance, benches and flat surfaces in public spaces are altered or designed in ways to deliberately make them uncomfortable or even impossible to rest or sleep on. Here, previously available scaffolds are removed or disrupted to prevent their continued use. As Rosenberger (2017) points out, the deliberate designs of material objects are often intended to encourage their intended use (like sitting) and discourage alternative uses (like sleeping). In virtue of these designs, objects and environments become 'scripted' so as to restrict and impair specific purposes and specific people's abilities to occupy and inhabit public spaces in ways they see fit.

Other interventions can be seen as forms of niche alteration that are aimed at changing who feels at home in a specific environment. The Manilow Method is a good example of this. Rather than

removing or altering an existing scaffold, music is added in order to render the space less aesthetically and affectively appealing to young people. The same goal motivated some of the decisions to play classical music in train stations. The aim is to render the character of such niches unattractive for young people and in doing so, make them more attractive places for older people. This also applies to the addition of bright lighting or clearly visible surveillance cameras.

We might describe these additions as impacting the affective arrangement or atmosphere of the space. By adding sounds, lights, or objects, the affective tone of the niche is altered with the aim of disrupting certain uses of the space by certain kinds of people – such as young people using a train platform or a public car park as a social space. A niche that previously may have been used to regulate affect in a positive way (kids hanging out, playing their own preferred music), now has a character that causes annoyance and distaste, even actively clashing with the rhythms of (at least some people's) bodily activity. While this may make the place more welcoming to others (for example, older people who find youngsters threatening), it does so by deliberating targeting and aiming to exclude a specific group (by making the place less welcoming to them specifically).

Finally, there are interventions that do not necessarily aim to expel certain groups from an environment but to alter behaviour from within by trying to influence people's moods and/or actions. Consider Eindhoven's use of smart technology to adjust lighting settings on public streets to calm people's moods. Here, a niche is altered in order to provide a specific form of affective regulation. Smart technology is used to specifically respond to data that indicates whether a particular person is angry or hostile and adjusts lighting in order to quell this anger in favour of a calmer disposition. In this case, technology is used to make on-going adjustments to the niche in response to the specific occupants and what they are doing and feeling.

6. The ethics and politics of niche alterations

Viewing exclusionary environmental designs as niche alterations brings into view additional ethical and political worries that are not captured when we analyse these interventions through the lens of the nudge literature. Instead of providing all-things-considered ethical evaluations of each

of these interventions, we aim to identify and analyse these concerns, which obviously should be weighed off against the arguments in favour of these interventions, including the extent to which they effectively reduce crime and other harms. In our view, a raft of concerns raise their heads when we understand agents, their agency, cognition, and affectivity, as intimately entangled with their niches. In particular, we suggest that the kind of interventions at play here not only work to disrupt niches for particular groups in ways that negatively impact their spatial agency and affective lives but, in some cases, deliberate alterations of niches can lead to affective injustices. Note that not each objection applies equally to each intervention. Instead of providing full-fledged ethical evaluations of each case, which needs careful consideration of the context, the effectiveness, available alternatives, et cetera, we want to highlight the most salient worries, the gravity of which always depends on the case at hand.

First, we can see how some of these interventions work by *coercively excluding people* from certain niches. The playing of 'Mosquito' sounds makes a space physically unbearable to be in for young people. While this is too coercive to count as a nudge, it is a coercive form of exclusion from a particular niche. The point here is that design changes can be as exclusionary as more traditional forms of coercion. Sounds can be as hard to ignore and as costly to bear and overcome than fences. Furthermore, these new forms of coercion, as more traditional forms before them, target groups (for example, young people) reinforcing stereotypes of which groups are perceived as disruptive, even criminal.

Second, analysing these interventions as niche alterations highlights the fact that these interventions deliberately change environments to make them more comfortable for some people and less hospitable to others. Often interventions aren't just a way of constructing a particular niche for certain people or bodies, they actively attempt to *disrupt or subvert existing niches*. Young or homeless people are already using these public spaces – like park benches or church alcoves – but are driven out. As a result, they lose access to their niche and to the scaffolding it provided. Such top-down manipulations change the affective profile of particular niches and exert a strong influence on what their purpose is, setting the tone for (potential) occupants. Where Arseli Dokumaci (2023) points to the way public spaces, objects and environments are typically

constructed and designed without thought as to how they accommodate (or fail to accommodate) certain bodies, here we see thoughtful environmental designs acting as mechanisms of deliberate exclusion. The whole idea behind these exclusionary designs is to actively create barriers and burdens for smooth engagement and impose physical, cognitive, and affective burdens for those who must now continually work against – instead of with – the environments they inhabit. This diminishes their sense of spatial agency and their ability to use and integrate with the environment in supportive ways. The people who are targeted and forced to navigate spaces that are ill-suited to their interests, aims and capacities are, as Barry Manilow himself would put it, "caught up in a world of uphill climbing".

Third, while changing a niche may, on the surface, seem relatively innocuous – we change and alter spaces all the time – it is important to stress that those who are targeted by such interventions can be expelled from, or made to feel unwelcome in, spaces that they were previously relying on. By disrupting existing niches, they *shrink the spatial agency* of occupants (whereas playing classical music in opera houses or Barry Manilow during cruise party nights would not). This is particularly pernicious when these groups, such as homeless people, are already disadvantaged and marginalised in society. In these cases, the targeted nature of these exclusionary designs serve to sustain and aggravate already existing social inequalities and hierarchies by further marginalising specific practices and specific groups.[6] Furthermore, such groups will likely not have a lot of other niches that they can turn to that could provide the same kind of affective and agential scaffolding. As such, exclusionary designs imply that these groups lose access to environments that support their affective needs. Note that this can occur both when existing niches are altered so as to exclude groups (the existing benches in a park are changed or a sound device is added to a public building) and when new public spaces are created (a new park or public building is constructed from scratch). In both cases, the (often differential) impact these (re)designs have on (different) people's affectivity and agency is a morally relevant aspect that those responsible or accountable for these spaces should take into consideration.

Fourth, these are not simply cases of creating a hostile niche that renders previous scaffolding unusable or unpleasant. They can *disrupt people's sense of agency, trust, and belonging* in that space and beyond. To put it another way, there is an affective impact that goes beyond a mere loss of access. As discussed above, when we come to rely upon certain niches and scaffolds, we develop an affective trust in them. When our niches let us down, this can disrupt this trust, leaving us feeling disorientated. Where niches are altered top-down, people might not only experience a sense of disorientation and loss but also a sense of not fitting in or belonging to a particular space. As Ahmed (2007) highlights, if this sense of not belonging persists, this can sediment into a more pervasive feeling of being at odds with, even alienated from, one's environment and, in turn, from society.

Being dispelled from a niche, or having one's spatial agency within it confined or obstructed, signals that one's way of being, even one's very body, is unwanted and undesirable.[7] The fact that these interventions are deployed in public spaces makes this particularly problematic. It can push people whose status as part of the 'public' is already precarious, further away from the feeling of being part of the citizen body. These forms of exclusion, then, may (further) reduce people's feeling of inclusion as part of the public. Again, these concerns are amplified when the people targeted by the interventions don't have other welcoming niches to turn to.

Fifth, the affective impact of deliberate (re)designs of niches can constitute a specific kind of injustice, namely *affective injustice*. This refers to a form of injustice that people face in relation to their feelings, moods and emotions (Archer & Mills, 2019; Srinivasan, 2018; Whitney, 2018). According to Francisco Gallegos (2022), we should understand affective injustice as the unfair deprivation of affective goods (such as psychological well-being) to which people are owed. While the affective injustice literature has primarily focused upon how social reception and norms work to constrain people's access to affective goods, understanding the role that environments play in shaping and supporting our affective lives and capacities brings into view news ways of conceiving of affective injustice. As Joel Krueger (forthcoming) has recently highlighted, constraining or undermining someone's ability to make use of the environment for affective ends can amount to a

form of affective injustice as it deprives someone of access to ecological goods that support their affective flourishing and well-being.[8] Justice requires that all members of society are provided with sufficient opportunities to inhabit (and if need be, construct and alter) the environments that support their needs, interests and agency. While this requires a fair balancing of the interests and needs of different social groups, our claim here is that exclusive environmental designs tend to tip this balance in problematic ways as they reinforce and further aggravate already existing inequalities in such opportunities.

In altering niches, interventions – like those in CPTED – change who can feel at home in these spaces, which may have a more pervasive, long-term impact on people's ability to feel at home in public spaces at all. We argue that, in some cases, this can go beyond affective inconvenience or discomfort and amount to affective injustice. Redesigning public spaces to make some people feel more at home in those spaces and others feel less at home is a way of changing whose psychological well-being is prioritised in those spaces. Considering any intervention by itself may not allow us to see whether this particular way of prioritising some people's psychological well-being over others is unfair or not. However, when we look at the bigger picture, we can see how interventions like CPTED function to systematically prioritise the psychological well-being of privileged people at the expense of that of marginalised people. Exclusionary interventions are designed with the aim of making young or homeless people feel less at home in public spaces and making them more comfortable spaces for older and richer people to inhabit. The affective unfairness of these interventions lies in the systematic prioritisation of the well-being of certain privileged groups over that of other, disadvantaged groups. As such, weighing up the moral implications of these environmental interventions is not merely a matter of looking at whether a group's affective needs are undermined in light of these niche alterations in that particular space alone but whether or not these needs can be met by other niches elsewhere. Where this is not the case, this raises the likelihood of this resulting in affective injustice.

Sixth, it is worth noting that people and groups might inadvertently be harmed by niche alterations. Take, for instance, the hostile architecture of making surfaces impossible or uncomfortable to sit

upon. While this may be targeted at homeless people, it also shrinks action-possibilities for others such as old or disabled people. Or take the playing of music in public spaces, which can increase sensory discomfort for people with autism (Krueger, 2023). While these groups are not deliberately being targeted by these interventions, they may also feel a constricted sense of spatial agency and affective discomfort as a result. Moreover, where these people and groups are those who are frequently overlooked in public design, this can further drive and sediment feelings of not fitting, not being of concern, and being out of view. When we consider the long-term impact of these niche alterations, then, we can see how they can lead to affective dysregulation and alienation and further contribute to wider systematic failures to support certain people. Interestingly, this highlights the potential concerns of environmental exclusionary design for those not explicitly targeted by such interventions, especially when the burdens fall disproportionately on already over-looked and marginalised groups.

More generally, people may be excluded by niche alterations that are not intended to make the space less welcoming to anyone. A transport authority may decide to play classical music in subway stations because they think it will make the space more pleasant for everyone, without realising that it will discourage some people from using the space. Such unintentional niche alterations can still be morally objectionable if they have harmful effects, though it seems plausible that those who make such a decision will be less blameworthy than cases where a niche is altered with the conscious intention of excluding people.

Seventh, what, though, about alterations that more positively encourage, rather than just discourage, certain behaviour? Such environmental designs and interventions can lead to the concretisation of niches. While they may appear dynamic in nature, particularly when based on smart technology in relation to real-time data about the occupants of a space, this dynamism is only surface-level. Underlying these methods is a mechanic of over-determination, where there is a scripting of certain behaviours and affectivities. To use Seamon's metaphor, agent's movements and actions become overly choreographed (Seamon, 1980). There is a risk that such *over-determination discourages creative and flexible ways of engaging with niches* and leaves spaces

not only autocratic but "too sterile and rigid to come to life" (Kukla, 2021, p. 44). Practically speaking, such over-determination could prove self-defeating, for in attempting to heavy-handedly shape the actions of agents, they may leave spaces undesirable and dull. Indeed, we can already see this in the proliferation of carbon-copy malls, gentrified neighbourhoods, and lifeless learning environments. In short, it might make behaviours more predictable in such spaces, but, in doing so, render such spaces undesirable in the long run (Kukla, 2021).

By over-determining public spaces, the ability to engage in active niche construction – or "tinkering" as Kukla (2021) calls it – is increasingly being driven into the private sphere. Yet, those who are often being actively driven out of or discouraged from occupying public niches, are the very people who have little access or control over private spaces that they might curate. Pursuing increasingly top-down forms of niche construction, which is itself driven by norms and values emerging from privilege and power, equally pushes bottom-up construction into the realm of privilege and power.[9] If we take seriously the idea that our environments play an important role in our agency and affective well-being, we might follow Kukla (2021) even further and advocate for individuals' 'right to the city': the right of citizens to engage in bottom-up alterations to environments so as to support their needs, desires, and interests. Through this lens, the kind of top-down interventions characterised in, for example, CPTED risks not only causing harms and injustices but contravenes this broader right to be part of the construction of the niches one inhabits. We want to close by returning to the case of Eindhoven. Here, the smart technology enabled interventions do not target specific groups but are designed precisely to only come into effect when specific expressions of anger and aggression are detected. In specifically targeting these behavioural expressions, the above concerns about excluding or harming individuals due to their membership to a particular group, appear not to arise. The same arguably goes for the worry about over-determination. However, while these interventions that de-escalate aggression can be ethically desirable for many reasons, we suggest that they are not straightforwardly positive. Black people, for instance, are more likely to be perceived as being angry (Archer & Mills, 2019; Whitney, 2018), a bias that can be embedded in smart technology as well. Furthermore, there is a concern that in assuming that anger is always something to be discouraged, we risk quelling

legitimate expressions of anger, such as anger felt and expressed in the face of racism. This lack of sensitivity around the aptness of anger itself is a form of affective injustice (Srinivasan, 2018).

In short, conceptualising exclusionary environmental designs as forms of niche alteration and construction reveals a variety of moral risks and wrongs, especially in terms of the affective ramifications they might have. In particular, our analysis highlights the importance of subjecting these environmental interventions to an ethical and political analysis that does not look at interventions in isolation but adopts a more global perspective; for many of the moral wrongs which we have identified do not only relate to one-off instances of loss of access or affective discomfort or harm but broader issues of injustice and oppression. The concerns we have raised amplify when an environmental intervention does not simply fail to meet an individual person's affective needs but becomes part of a pattern of affective neglect or harm that people suffer by virtue of their membership to a specific group such that it contributes to patterns of oppression. Knowing that injustice can follow from such interventions encourages us to adopt the kinds of macroscopic analysis that feminist philosophers such as Marilyn Frye (2019) have argued are needed to clearly identify cases of oppression.

Note that this does not mean that all environments necessarily need to be designed to be universally inclusive. For one, it is not clear whether this is possible given that different people's needs and desires can be incompatible. Moreover, it seems unlikely that this is desirable given that there can be good reasons to design spaces with certain purposes, actions, and people in mind, even when this might mean the active exclusion of others. Nor are we intending to imply that environments should be constructed with an 'anything goes' attitude. Not all actions and desires are equal and some people can make use of public spaces in ways we do not want, e.g., to harass women, to carry out drive-by shootings, or to dump bodies. Nevertheless, given that exclusionary environmental design strategies have the potential to cause both short- and long-term affective harms and injustices, as well as form part of wider structures of systemic oppression, these considerations should be taken into account and not simply be overshadowed by whatever attractions such interventions have (e.g., their cheapness). Even when they prevent violent crime,

exclusionary environmental designs raise ethical and political concerns that need to be at least weighed up when assessing their overall desirability.

7. Conclusion

In summary, exclusionary environmental designs might *appear* less coercive and less invasive than more traditional measures. After all, they do not involve physical exclusion of bodies (for example, through gates, walls, and chains), physical removal (for example, arrest) or explicitly dictated actions (for example, 'Whites Only' or '25+' signs). We have argued that these interventions are not as innocuous as they seem. In fact, we claim that they: 1) can be quite coercive; 2) crucially work through (the deliberate designs) of people's environments, which have a distinctive value and importance; 3) can have a long-term impact on people's interests, well-being, trust, and (spatial) agency; and, 4) have a distinctive affective component which can raise specific worries of affective injustice. Each of these worries only comes into clear view when understanding these interventions not as nudges but as niche alterations.

Environmental design, we have argued, is never neutral as it inevitably supports and encourages some bodies, behaviours, and affects while suppressing and discouraging others. When implemented in targeted and exclusionary ways, it entails multiple wrongs and injustices. We have argued that the most pertinent ones are best understood when viewing these interventions not so much as nudges but as niche alterations. These interventions disrupt the kind of valuable affective scaffolding provided by spaces, harm and restrict people's spatial agency, stop, disorient and/or alienate bodies, constitute affective injustices on the parts of the groups they target, reinforce problematic social inequalities and hierarchies and sediment values in inflexible, conservative and homogenous ways. Not only do they harm people exposed to them, they can lead to an enduring erosion of affective trust in niches, to experiences of isolation, alienation, and disorientation, and they can work to structure on-going embodied ways of being and feeling in the world. In sum, they get into and under our skin.

The fact that these harms and injustices are inadvertent is itself part of the problem. These harms often are felt by those people and those bodies that often are not considered when public spaces are designed and built in the first place. Getting a clearer picture on the wrongs of these exclusionary environmental designs, then, is a much needed first step to creating more inclusive and more (physically, socially, affectively) supportive public environments.

References

Aagaard, J. (2021). 4E cognition and the dogma of harmony. *Philosophical Psychology*, *34*(2), 165-181. https://doi.org/10.1080/09515089.2020.1845640

Ahmed, S. (2007). A phenomenology of whiteness. *Feminist theory*, *8*(2), 149-168. https://doi.org/10.1177/1464700107078139

Archer, A., & Mills, G. (2019). Anger, affective injustice, and emotion regulation. *Philosophical Topics*, *47*(2), 75-94. https://www.jstor.org/stable/26948107

BBC News (1998, January 30). Symphonies soothe train vandals. *BBC News.* Retrieved October 10, 2023, from http://news.bbc.co.uk/1/hi/uk/51939.stm

Bennett, C. (This volume). The expressive dimension of crime prevention exclusion techniques. In S.J. Holmen, T.S. Petersen & J. Ryberg (Eds.), *Preventing Crime by Exclusion: Ethical Considerations.* New York: Routledge.

Birks, D. (This volume). The wrongness of preventive exclusion. In S.J. Holmen, T.S. Petersen & J. Ryberg (Eds.), *Preventing Crime by Exclusion: Ethical Considerations.* New York: Routledge.

Bovens, L. (2009). The ethics of nudge. In T. Grüne-Yanoff & S. O. Hansson (Eds.), P*reference Change: Approaches from Philosophy, Economics and Psychology* (pp. 207-219). New York: Springer.

Capers, B. (2009). Crime music. *Ohio State Journal of Criminal Law*, *7*(1), 749-770.

Casteel, C., & Peek-Asa, C. (2000). Effectiveness of crime prevention through environmental design (CPTED) in reducing robberies. *American Journal of Preventive Medicine*, *18*(4), 99-115. https://doi.org/10.1016/S0749-3797(00)00146-X

Clark, A. (2003). *Natural-born cyborgs: Minds, technologies, and the future of human intelligence*. Oxford: Oxford University Press.

Colombetti, G., & Krueger, J. (2014). Scaffoldings of the affective mind. *Philosophical Psychology*, *28*(8), 1157-1176. https://doi.org/10.1080/09515089.2014.976334

Coninx, S. (2023). The dark side of niche construction. *Philosophical Studies*, *180*, 3003-3030. https://doi.org/10.1007/s11098-023-02024-3

Coninx, S., & Stephan, A. (2021). A taxonomy of environmentally scaffolded affectivity. *Danish Yearbook of Philosophy*, *54*(1), 38-64. https://doi.org/10.1163/24689300-bja10019

Crowe, T., & Fennelly, L. (2013). *Crime Prevention Through Environmental Design*. Amsterdam: Elsevier.

de Carvalho, F. N., & Krueger, J. (2023). Biases in niche construction. *Philosophical Psychology*, 1-31. https://doi.org/10.1080/09515089.2023.2237065

de Lange, M.A., Debets, L. W., Ruitenburg, K., & Holland, R. W. (2012). Making less of a mess: Scent exposure as a tool for behavioral change. *Social Influence, 7*(2), 90-97. https://doi.org/10.1080/15534510.2012.659509

Dokumaci, A. (2023). *Activist Affordances: How Disabled People Improvise More Habitable Worlds*. Durham: Duke University Press.

Doorman, S., & Pali, B. (2021). Underneath the promise of safety and security in a 'Smart City': An ethnographic study of Eindhoven's Living Lab Stratumseind. *Journal of Extreme Anthropology*, *5*(1), 78-110. https://doi.org/10.5617/jea.8466

Duchen, J. (March 26, 2008). Mind the Bach: Classical music on the underground. *The Independent.* Retrieved October 10, 2023, from https://www.independent.co.uk/arts-entertainment/music/features/mind-the-bach-classical-music-on-the-underground-800483.html

Dutta, K. (September 14, 2014). Play classical music in hospitals and railway stations to 'calm public', report says. *The Independent.* Retrieved October 10, 2023, from https://www.independent.co.uk/arts-entertainment/classical/news/play-classical-music-in-hospitals-and-railway-stations-to-calm-public-report-says-9732479.html

Dyer, J.M., & Foy, V.M. (2022). Revealing the unseen: A review of Wood's lamp in dermatology. *Journal of Clinical and Aesthetic Dermatology*, *15*(6), 25-30.

Engelen, B., & Nys, T. (2019). Nudging and autonomy: Analyzing and alleviating the worries. *Review of Philosophy and Psychology, 11*, 137-156. https://doi.org/10.1007/s13164-019-00450-z

Frye, M. (2019). Oppression. In *Ideals and ideologies* (pp. 411-419). Routledge.

Gallegos, F. (2022). Affective injustice and fundamental affective goods. *Journal of Social Philosophy*, *53*(2), 185-201. https://doi.org/10.1111/josp.12428

Hausman, D. M., & Welch, B. (2010). Debate: To nudge or not to nudge*. *Journal of Political Philosophy*, *18*(1), 123-136. https://doi.org/10.1111/j.1467-9760.2009.00351.x

Hirsch, L. E. (2012). *Music in American Crime Prevention and Punishment*. Ann Arbor: University of Michigan Press.

Holmen, S.J. (This volume). 'Hanging out and sleeping on the ground': Acoustic environments, rationality, and the minimal account of permissible means of crime prevention. In S.J. Holmen, T.S. Petersen & J. Ryberg (Eds.), *Preventing Crime by Exclusion: Ethical Considerations.* New York: Routledge.

Hoogeveen, H. J., Nijboer, A., Wesselink, J.-W., & Van Winkel, J. (2018). *Smart & Leefbaar*. Amersfoort: Future City.

Ivanković, V., & Engelen, B. (2024). Market nudges and autonomy. *Economics & Philosophy, 40,* 138-165. https://doi.org/10.1017/S0266267122000347

Hoskins, Z. (This volume). Assessing exclusionary modes of crime prevention. In S.J. Holmen, T.S. Petersen & J. Ryberg (Eds.), *Preventing Crime by Exclusion: Ethical Considerations.* New York: Routledge.

Jeffery, C. R. (1971). *Crime Prevention through Environmental Design*. Thousand Oaks: Sage Publications.

Katro, K. (June 19, 2019). Sonic devices installed at 30 Philadelphia parks to prevent young people from loitering. *6ABC Action News*. Retrieved October 10, 2023, from https://6abc.com/the-mosquito-sonic-device-loitering-sound-machine/5353219/

Knight, B. (August 19, 2018). Berlin station to use harsh tunes on drug users. *Deutsche Welle*. Retrieved October 10, 2023, from https://www.dw.com/en/berlin-station-turns-to-atonal-tunes-to-deter-drug-users/a-45138040

Krueger, J. (2023). Affordances and spatial agency in psychopathology. *Philosophical Psychology*, 1-30. https://doi.org/10.1080/09515089.2023.2243975

Krueger, J. (2023). An ecological approach to affective injustice. *Philosophical Topics, 51*(1), 1-60.

Krueger, J., & Colombetti, G. (2018). Affective affordances and psychopathology. *Affective affordances and psychopathology*, 221-246. https://doi.org/10.2307/j.ctv8xnhwc

Krueger, J. & Osler, L. (2019). Engineering affect: Emotion regulation, the internet, and the techno-social niche. *Philosophical Topics*, *47*(2), 205-232. https://doi.org/10.5840/philtopics201947223

Kukla, Q. R. (2021). *City Living: How Urban Dwellers and Urban Spaces Make One Another*. Oxford: Oxford University Press.

Lavallee, Z. & Osler, L. (Forthcoming). Affordances and the shape of addiction. *Philosophy, Psychiatry, & Psychology*.

Liao, S.-Y., & Huebner, B. (2021). Oppressive things. *Philosophy and Phenomenological Research*, *103*(1), 92-113. https://doi.org/10.1111/phpr.12701

Maiese, M. (2016). Affective scaffolds, expressive arts, and cognition. *Frontiers in Psychology*, *7*, 359. https://doi.org/10.3389/fpsyg.2016.00359

Maiese, M. (2021). Mindshaping, enactivism, and ideological oppression. *Topoi*, *41*(2), 341-354. https://doi.org/10.1007/s11245-021-09770-1

Maiese, M. & Hanna, R. (2019). *The Mind-Body Politic*. New York: Springer.

Newman, O. (1972). *Defensible Space: Crime Prevention through Urban Design*. New York: Macmillan.

Noorda, H. (This volume). Homelessness and the use of music in crime prevention. In S.J. Holmen, T.S. Petersen & J. Ryberg (Eds.), *Preventing Crime by Exclusion: Ethical Considerations.* New York: Routledge.

Petticrew, M., Maani, N., Pettigrew, L., Rutter, H., & Van Schalkwyk, M. C. (2020). Dark nudges and sludge in Big Alcohol: Behavioral economics, cognitive biases, and alcohol industry corporate social responsibility. *The Milbank Quarterly*, *98*(4), 1290-1328. https://doi.org/10.1111/1468-0009.12475

Ranchordás, S. (2020). Nudging citizens through technology in smart cities. *International Review of Law, Computers & Technology*, *34*(3), 254-276. https://doi.org/10.1080/13600869.2019.1590928

Rela, N. (2023). On nudges that fail. *Behavioural Public Policy*, *7*(3), 758-772. https://doi.org/10.1017/bpp.2022.10

Rosenberger, R. (2017). *Callous Objects: Designs Against the Homeless*. Minneapolis: University of Minnesota Press.

Saghai, Y. (2013). Salvaging the concept of nudge. *Journal of Medical Ethics*, *39*(8), 487-493. https://doi.org/10.1136/medethics-2012-100727

Sas, M., Ponnet, K., Reniers, G., & Hardyns, W. (2022). Nudging as a crime prevention strategy: The use of nudges to improve cyclists' locking behavior and reduce the opportunities for bicycle theft. *Security Journal*, *35*, 463-485. https://doi.org/10.1057/s41284-021-00285-3

Schmidt, A. T., & Engelen, B. (2020). The ethics of nudging: An overview. *Philosophy Compass*, *15*(4), e12658. https://doi.org/10.1111/phc3.12658

Seamon, D. (1980). Body-subject, time-space routines, and place-ballets. In A. Buttimer & D. Seamon (Eds.), T*he Human Experience of Space and Place* (pp. 148-165). Milton Park: Routledge.

Sifferd, K. (This volume). Out of sight, out of mind: Is the state justified in using selective exclusion as punishment?. In S.J. Holmen, T.S. Petersen & J. Ryberg (Eds.), *Preventing Crime by Exclusion: Ethical Considerations.* New York: Routledge.

Slaby, J. (2016). Mind invasion: Situated affectivity and the corporate life hack. *Frontiers in Psychology*, *7*, 266. https://doi.org/10.3389/fpsyg.2016.00266

Srinivasan, A. (2018). The aptness of anger. *Journal of Political Philosophy*, *26*(2), 123-144. https://doi.org/10.1111/jopp.12130

Sterelny, K. (2010). Minds: Extended or scaffolded? *Phenomenology and the Cognitive Sciences*, *9*(4), 465-481. https://doi.org/10.1007/s11097-010-9174-y

Sunstein, C. R. (2014). Nudges vs. shoves. *Harvard Law Review*, *127*(6), 210-217. https://dx.doi.org/10.2139/ssrn.2390120

Sunstein, C. R. (2016). *The Ethics of Influence: Government in the Age of Behavioral Science*. Cambridge: Cambridge University Press.

Sunstein, C. R. (2021). *Sludge: What Stops Us from Getting Things Done and What to Do About It*. Cambridge: MIT Press.

Thaler, R., & Sunstein, C. R. (2021). *Nudge: The Final Edition*. New York: Penguin Random House.

Thunström, L. (2019). Welfare effects of nudges: The emotional tax of calorie menu labeling. *Judgment and Decision Making, 14*(1), 11-25. https://doi.org/10.1017/S1930297500002874

Timms, R. (2022). *Hostile Scaffolding* (MA Dissertation, University of Kwazulu-Natal). https://doi.org/10.1080/05568641.2023.2231652

Timms, R., & Spurrett, D. (2023). Hostile scaffolding. *Philosophical Papers*, 52(1), 53-82.

Waldron, J. (October 9, 2014). It's all for your own good. *The New York Review of Books*. Retrieved October 10, 2023, from https://www.nybooks.com/articles/archives/2014/oct/09/cass-sunstein-its-all-your-own-good/

Westcott, L. (March 18, 2015). San Francisco Cathedral pulls water system that sprayed the homeless. *Newsweek*. Retrieved October 10, 2023, from https://www.newsweek.com/san-francisco-cathedral-pulls-water-system-sprayed-homeless-314934

Whitney, S. (2018). Affective intentionality and affective injustice: Merleau-Ponty and Fanon on the body schema as a theory of affect. *Southern Journal of Philosophy*, *56*(4), 488-515. https://doi.org/10.1111/sjp.12307

Young, I. M. (1990). Five faces of oppression. In *Justice and the Politics of Difference* (pp. 39-65). Princeton: Princeton University Press.

Endnotes

[1] Readers interested in a broader perspective on this can be referred to other chapters in this book. Those by Zachary Hoskins and David Birks go furthest in the direction of an overall ethical assessment of these kinds of exclusionary interventions.

[2] While different chapters in this book discuss the ethical considerations surrounding the use of auditory interventions, such as Manilow methods or mosquito devices, those that do so in most detail are Hadassa Noorda's critical analysis of their impact on homeless people and Sebastian Jon Holmen's analysis of the extent to which they fail to treat people as rational agents.

[3] In this sense, they are the physical analogues of what has been labelled 'sludges' (Sunstein, 2021). Sludge refers to interventions - by governments, companies or other agents - that deliberately create additional frictions that make navigating through life and doing what one wants to do harder. Typical examples are: adding paperwork burdens, making processes more complex, increasing waiting time, et cetera.

[4] Several chapters in this book analyse whether interventions like the ones we discuss violate or somehow reduce people's autonomy (like the chapter by David Birks) or whether they influence people's practical reasoning processes in problematic ways (like the chapter by Katrina Sifferd).

[5] Jesper Aagaard (2021) calls this the "dogma of harmony".

[6] While a couple of chapters in this book touch on similar concerns, the one that is most explicit in discussing to what extent such interventions can fail to treat people as equals – a key phrase coined by so-called 'relational egalitarians' – is that by David Birks.

[7] Chris Bennett's insightful chapter in this book provides a more detailed analysis of the expressive dimension of such interventions and whether people can have good reasons to feel degraded or insulted in response to them.

[8] We also think that niches can act as vehicles for epistemic and cognitive injustices. Think, for example, of the way that certain groups' histories, stories, and memories are not displayed or preserved in our squares, our libraries, our novels, and our art. This can lead to certain (local forms of) knowledge not forming part of our niches. Niche construction can thus lead to epistemic and cognitive injustices, such as loss of knowledge, and perpetuate the idea that dominant epistemic systems are superior to alternatives. Where control over niches lies primarily in the hands of or is strongly influenced by a dominant group, they can come to be bearers of what Iris Marion Young (1990) calls "cultural imperialism", where the dominant group's values and norms are not only societally enforced but saturate the material environment.

[9] Though it is worth noting that there may be some situations where a uniform design that allows little room for niche construction and tinkering may be important. When it comes to road traffic, for example, a clear and relatively uniform design may promote road safety better than a design that allows for local variation and tinkering. However, accepting the existence of some spaces where tinkering is undesirable does not undermine the general point that an increase in

Osler, L., Engelen, B., & Archer, A. (forthcoming). The ethics and politics of nudges and niches. In Preventing Crime by Exclusion: Ethical Considerations. Eds. T Søbirk Petersen, Sebastian Jon Holmen, and Jesper Ryberg. Routledge.

---

top-down forms of niche construction across a city is likely to (further) constrict the agency and well-being of at least some groups.