

Goldsmiths Research Online

*Goldsmiths Research Online (GRO)
is the institutional research repository for
Goldsmiths, University of London*

Citation

Kindynis, T. 2021. Persuasion architectures: Consumer spaces, affective engineering and (criminal) harm. *Theoretical Criminology*, 25(4), pp. 619-638. ISSN 1362-4806 [Article]

Persistent URL

<https://research.gold.ac.uk/id/eprint/27420/>

Versions

The version presented here may differ from the published, performed or presented work. Please go to the persistent GRO record above for more information.

If you believe that any material held in the repository infringes copyright law, please contact the Repository Team at Goldsmiths, University of London via the following email address: gro@gold.ac.uk.

The item will be removed from the repository while any claim is being investigated. For more information, please contact the GRO team: gro@gold.ac.uk

INTRODUCTION

Whilst the changing sensibilities and subjectivities associated with consumerism have long been engaged by criminologists, it is only relatively recently that critical and cultural criminologists have come to focus their attention directly on the interrelationships between consumer culture, crime and harm (Hayward and Smith, 2017; see for example, Hayward, 2004; Hall et al., 2008). Following the 2011 England ‘consumer riots’ (Treadwell et al., 2013), the relationship between a pervasive *culture of consumption*, the cultivation of antisocial subjectivities, and the potential for this to manifest in harmful behaviours could hardly be more stark. In the wake of the riots, criminology has seen a renewed interest in the nexus between criminality and consumer culture (Moxon, 2011; Smith and Raymen, 2017). Recent years have also seen an emergent interest – again, particularly among critical and cultural criminologists – in *space*. For much of the discipline’s history, criminologists have tended to regard the built environment as ‘an inert material backdrop, or an aesthetic surface upon which criminal activities can be mapped’ (Campbell, 2013: 18). However, recent work drawing on the insights of the ‘spatial turn’ in social theory, has begun to offer more nuanced accounts of the lived experience and socio-cultural complexities of space and its interrelationships with crime and social control (Campbell, 2013; Hayward, 2012). At the same time, criminologists have begun to interrogate and problematise the centrality accorded to human actors and agency. An array of broadly poststructuralist theory has furnished criminologists with the requisite conceptual language to locate crime and its control within hybrid networks or ‘assemblages’ of bodies, spaces, technologies and affect (Haggerty and Ericson, 2000; Brown, 2006).

The present article draws together these three emergent strands of criminological thinking in order to theorise the role of strategically designed consumer spaces in modulating potentially criminogenic and harmful dispositions and behaviours. The article proceeds as follows. First, the article introduces recent work in cultural geography and urban studies, which has drawn attention to the manipulation of *affect* through spatial design.¹ Second, by way of example,

¹ Affect is the preconscious “background” to the experiential foreground of sensation, feeling, through and action (see Thrift, 2008). There are numerous overlapping approaches to theorising and understanding “affect” (see Thrift, 2008: 175 - 182, *inter alia*). The present article follows a broadly

the article considers how such strategies are deployed in three types of consumer environments: shopping malls and retail spaces; casinos and other gambling environments; and the so-called night time economy. In each of these settings, it is shown how design strategies are enrolled in order to elicit physiological and psychological traits conducive to consumption. Also considered is the extent to which such design strategies are capable of modulating the potential for criminogenic and harmful dispositions and behaviours. Third, the article engages such developments theoretically. It is suggested that the increasing prevalence of what I call “persuasion architectures” necessitates that we rethink the distinctions and interrelationships between human subjectivity and agency and the built environment. The implications of this conceptual reorientation are explored – first, for our understandings of agency, intentionality, moral responsibility and political accountability; and second, for criminological thinking around embodied difference, power and exclusion.

1. ENGINEERING AFFECT

Recent work in cultural geography and urban studies has drawn attention to an emergent ‘biopolitical strategy’: namely, ‘the engineering of affect through urban design’ (Miller, 2014a: 14; see, for example, Adey, 2008; Allen, 2006; Amin and Thrift, 2002; Thrift, 2008). Put simply, certain bodily and emotional dispositions are now being actively designed or ‘scripted’ into (urban) space. Architecture and design are increasingly enrolled in order ‘to construct and channel’ the possibilities for action, as well as the sensations and emotions experienced within a growing number of sites throughout the late modern city (Adey, 2008: 442). What is more, this nascent mode of ‘ambient power’ is taking hold in innumerable, subtle, and often imperceptible ways, beyond our conscious awareness (Allen, 2006).

Criminologists, by comparison, have been slow to consider the profound implications of this emergent form of governance for our understandings of the interrelationships between space, crime and social control. For some time, the predominant conception of the

Deleuzian interpretation, via the work of Thrift and others. It is this reading of, and approach to, affect that has been followed by many of the scholars whose writing provides the groundwork for the argument developed herein.

space/crime nexus was of a rational criminal actor, who related to their environment in a calculated, even formulaic manner (Clarke, 1997; Clarke and Felson, 1993). The assumptions of situational crime prevention, routine activity theory and rational choice theory have subsequently been criticised by cultural criminologists, for whom emotion and embodied pleasure are key to understanding both seemingly irrational 'expressive' lawbreaking and ostensibly rational economic or 'acquisitive' criminality (Hayward, 2007). However, while emotion and embodiment now constitute staples of critical and cultural criminology, the role of affect – the preconscious "background" to the experiential foreground of sensation, feeling, thought and action – has only recently begun to attract serious attention within the discipline (Young, 2010: 85; Campbell, 2013).

The manipulation of affect through spatial design has significant implications for criminological understandings of (the spatial production of) subjectivity, agency, aetiology, power and difference. For instance, the geographer Nigel Thrift has suggested that:

systematic knowledges of the creation and mobilisation of affect have become an integral part of the everyday urban landscape: affect has become part of a reflexive loop which allows more and more sophisticated interventions in various registers of urban life. (2008: 172)

Furthermore, these 'knowledges' are 'being deployed... by the rich and powerful... to political ends: what might have been painted as aesthetic is increasingly instrumental' (Thrift, 2008: 172). The 'knowledges' to which Thrift refers here range from architectural design, advertising, marketing and branding, to crowd psychology and event management, but also include Crime Prevention Through Environmental Design and other environmental criminologies. Thus, *criminology is itself complicit in the engineering of affect*.

Affective intensity has long been a constant in cities. Georg Simmel famously described 'the intensification of emotional life due to the swift and continuous shift of... stimuli' that accompanied 'every crossing of the street' (1971: 325). What is unique today, however, is the 'sheer weight of the gathering together of formal knowledges of affective response... (e.g. design, lighting... music... etc.), and... the wide spectrum of available technologies' (Thrift,

2008: 198). Thrift goes so far as to suggest that affect is now able to be *channelled* in a manner 'akin to the networks of pipes and cables that are of such importance in providing the basic mechanics and root textures of urban life' (2008: 172). 'Though affective response can clearly never be guaranteed', Thrift continues, 'this is no longer a random process... It is a form of landscape engineering that is gradually pulling itself into existence, producing new forms of power as it goes' (2008: 198). Increasingly – and contrary to the assertions *both* of positivistic environmental criminologies *and* of much cultural criminology – a range of manufactured environments are 'set up to shape the actions of *'predictably irrational'* subjects' (Anderson, 2011: 39, emphasis added).

What we are confronted with, then, is an opaque, insidious 'microphysics of power', (Foucault, 1977) – a subliminal 'microbiopolitics' (Thrift, 2008: 198) – '[s]himmering at the fringes of conscious awareness' (Roberts, 2012: 2521). What takes place in a growing number of public and pseudo-public spaces is now circumscribed by a 'calculative architecture of affective control' (Adey, 2008: 438). In an increasingly contrived and controlling (pseudo-) public realm, 'design, layout, lighting... and other affective means... have an impact which is difficult to isolate, yet nonetheless powerful in their incitements and limitations on behaviour' (Allen, 2006: 445). Underlying this emergent modality of social control are the twin imperatives of *security* and *commerciality* (Adey, 2008). Recent work from within criminology has begun to consider the role of security in mobilising affect (Crawford and Hutchinson, 2016). However, the engineering of affect through environmental design undoubtedly reaches its apex in shopping malls, department stores, supermarkets, casinos, restaurants, bars, nightclubs and other consumer spaces. Here, practices including retail design, visual merchandising and brand implementation now directly target the body of the consumer through a host of design strategies intended both to *entrain bodies* in certain ways, and to induce certain *emotional dispositions* conducive to consumption (Adey, 2008; Goss, 1993; Miller, 2014a; Shields, 1992). Indeed, the study of consumer behaviour – and more specifically, how to unconsciously influence it *in situ* – now comprises a veritable research industry with its own journals and conferences (Turley and Milliman, 2000).

By way of example, the second part of this article considers how 'spatial technologies of affect' (Miller, 2014a: 18) are enrolled in three types of consumer environments: shopping

malls and retail spaces; casinos and other gambling environments; and the night time economy. In each of these settings, it is shown how design strategies are deployed in order to precipitate and modulate physiological and psychological traits conducive to consumption.

2. SPATIAL TECHNOLOGIES OF AFFECT

2.1. Choreographing consumption

It is in contemporary retail environments – shopping malls, department stores and flagship ‘brandscares’ (Klingmann, 2007) – that spatial technologies of affect have been honed, and where we encounter multiple, complimentary and mutually reinforcing design strategies oriented towards modulating capacities for consumption and their attendant harms. Readers from a criminological background will be familiar with Shearing and Stenning’s (1984) account of an emerging mode of ‘discipline’, which they argue is rapidly becoming a dominant form of contemporary governance. In a “guided tour” of Disneyworld, the authors detail how control strategies are embedded in environmental design, and movement is subtly yet strictly regulated by features ‘such as pool[s], fountain[s] and flower garden[s]’, which serve ‘to direct visitors away from, or towards particular locations (1984: 302). Significantly, the authors view this emergent form of control as inextricably linked with the rise of a consumer society. ‘[R]ather than coerced into compliance’, they write, ‘people are today seduced to conform by the pleasures of consuming’ (Shearing and Stenning, 1984: 304).

Similarly subtle control mechanisms – designed to direct and regulate the flow of visitors – are incorporated into the physical and material configuration of contemporary retail spaces. A cursory review of a typical design guide intended for shopping mall architects details the numerous strategies available to ensure the efficient ‘circulation’ of visitors (Coleman, 2006: 333): from the arrangement of escalators to prevent shoppers from moving quickly between floors (Goss, 1993); to curved mall designs, designed to foster a heightened sense of anticipation of the rewards awaiting the consumer around the next bend (Richards, 1990: 27). Different flooring materials and directionally patterned walkways are also used to

preconsciously direct visitor 'traffic flows' through the retail space (Manzo, 2005: 89; see, for example, Yelanjian, 1991; Turley and Milliman, 2000). Such spaces thus resemble a veritable *flow-diagram* of contrived affective channels and vortices.

However, design strategies employed to mobilise affect are by no means limited to floorplan schematics. Marketeers are increasingly turning their attention to retail environments' *qualitative* "atmospherics" or ambient properties, and their ability to influence consumers' behaviour (Bitner, 1992; Klingmann 2007). The upshot is that almost every feature of contemporary retail spaces – from temperature and odour to light and music – is now precisely engineered and managed in an attempt to elicit physiological-affective, emotional and behavioural responses conducive to spending time and money within the 'servicescape' (Bitner, 1992).

Importantly, these 'material choreographies' both direct and regulate movement, and influence behaviour and perceptions *beyond* our conscious recognition (Roberts, 2012: 2513). Moreover, these strategies are not only effective, but deliberate. A prominent theory of retail behaviour holds that consumers can be overwhelmed by their surroundings, and drawn, unconsciously and continually, to shop. The so-called "Gruen Transfer" – named after Victor Gruen, the father and philosopher of the modern shopping mall – refers to the moment when an individual with a specific purchase in mind responds to the retail environment's "scripted disorientation", and is transformed into an impulse shopper: 'a crucial point immediately visible in the shift from a determined stride to an erratic and meandering gait' (Crawford, 1992: 14). From this point on, the 'unconsciously bewildered shopper... cannot help but drift into the prepared pathways and patterns of externally induced consumer activity, unfocused yet exquisitely suggestible to gentle but firm environmental cues' (Kwinter, 1996: 96).

The intended cumulative effect of retail environments' strategic design is thus to direct visitors' movement, thereby providing maximal exposure 'to a battery of direct stimuli and other, more indirect, 'environmental cues'' (Healey, 2014: 39), in order to induce physiological and psychological dispositions conducive to consumption. Unwitting visitors are enticed to 'shop further than they had originally anticipated', culminating in unplanned purchases (Healey, 2014: 36). Such impulsivity is not an unintended "side effect", but is

designed-in to retail environments, and actively cultivated within a consumer culture more generally. Insatiable, impulsive (and indeed, *compulsive*) forms of consumer desire are ‘not only normalized but essential to... the current socioeconomic order’ (Hayward and Kindynis, 2013: 124). In this way, the strategic design of retail environments and other consumer spaces is implicated in a multitude of harms associated with non-criminal, culturally normalised forms of commodified leisure, such as shopping (see Smith and Raymen, 2017). The environmental destruction wrought by consumer culture’s inherent wasteful excess is accompanied by socially corrosive harms and symbolic forms of violence, as a neoliberal *culture of consumption* cultivates pathological subjectivities characterised by antisocial forms of envy and competitive individualism, and brooding frustration and resentment (Hall et al., 2008; Hayward and Kindynis, 2013).

In addition to perpetuating systemic forms of harm, consumer spaces’ strategic design may also catalyse any number of unintended consequences (Miller, 2014a). Clearly, retail environments’ strategic design embodies ‘the calculated intentions of architects, designers, and market researchers... to maximise sales’ (Roberts, 2012: 2513). Yet despite the “scientific” claims of much of the industry research literature, the ultimate outcome of such design inevitably *exceeds* its authors’ intentions (Miller, 2014a). Human behaviour is not straightforwardly choreographed in any deterministic sense; rather, bodies’ capacities for action are modulated, tempered, intensified or reconfigured. Consider what happens then, if the smooth, orderly flows of desire, consumption and capital *channelled* by retail spaces’ affective infrastructures become surplus, excessive, turbulent and chaotic – and visitors are compelled to consume in unintended, illicit ways. There seems little reason why impulsive *shoplifting* could not result from the same “scripted disorientation” designed to entice visitors into making unplanned legitimate purchases.

2.2. Gambling spaces

Although criminologists have highlighted a range of harms associated with gambling, to date, they have paid scant attention to the role played by gambling *spaces* in perpetuating such harms. Elsewhere, commentators have drawn a direct link between the interior design of the

casino and the 'interior states' of gamblers (Schüll, 2012). Perhaps most notably, Venturi and colleagues posited in their now seminal text, *Learning from Las Vegas*, that the architecture and ambience of the casino 'disorients the occupant in space and time' (1972: 49). Indeed, the publication of *Las Vegas* coincided with a new wave of casino development, 'whose meticulous architectural calculations left little to chance'; their interior design following 'a standard blueprint for revenue maximization' (Schüll, 2012: 37).

Again, a cursory review of a leading design guide for casino architects is instructive. Friedman's (2000) *Designing Casinos to Dominate the Competition* lists no less than thirteen design principles, regulating aspects including: ceiling height, floorplan, lighting intensity, ambient temperature and soundtrack. Casinos, Friedman contends, should be configured to resemble "mazes", through the use of 'intricate... networks of interconnecting pathways' intended 'to confuse or to confound' (2000: 63). This design strategy expressly seeks to 'precipitate and modulate' affective states conducive to profit maximisation (Schüll, 2012: 39). 'If a visitor has a propensity to gamble', Friedman writes, 'the maze layout will evoke it' (2000: 64). The function of the casino layout is thus 'to suspend... patrons in a suggestible, affectively permeable state that renders them susceptible to environmental triggers, which are then supplied' (Schüll, 2012: 46).

As with the design strategies employed by retail architects, the affective infrastructures of gambling environments also encompass a host of atmospheric properties intended to elicit traits conducive to maximal "player engagement". A study by Hirsch (1995), found that the amount of money gambled on slot machines rose by *over 45 percent* in part of a casino that had been subtly treated with a pleasant odour. Similar studies have been published evaluating the influence of music (Griffiths and Parke, 2005; Dixon et al., 2007), lighting (Stark et al., 1982; Spenwyn et al., 2009) and décor (Finlay et al., 2010) amongst other variables on gambling behaviour. Importantly, these 'systematic knowledges of the creation and mobilisation of affect' (Thrift, 2008: 172) are being *reintegrated* into the design of ever more calculated and efficient gambling environments. Moreover, this process encompasses not only the "megaresort" casinos of Las Vegas, but extends to high-street betting shops and the broader 'debtogenic landscapes' within which they are situated (Welsh et al., 2014); as well as online gambling environments and mobile gaming apps (Bramley and Gainsbury, 2015).

The characteristics of highly controversial so-called “fixed-odds betting terminals” also merit interrogation. A raft of studies has shown that design features including, but not limited to, reel spin speed (Ladouceur and Sévigny, 2006); the presence of illuminated “feature” buttons (Parke and Griffiths, 2006); audio-visual cues such as flashing lights, sound effects and jingles (Barrus and Winstanley, 2016); note acceptors/denomination (Hansen and Rossow, 2010); and absence of responsible gaming signage (Monaghan and Blaszczynski, 2010) all promote continued play, disadvantageously risky decision making, and greater incurred financial losses (Blaszczynski, 2013). Clearly, the affective engineering of gambling *spaces* is instrumental not only in maximising “player engagement” and revenue for the gambling industry, but also in perpetuating a range of associated harms: indebtedness, anxiety, depression, stress, domestic instability and destructive behaviour.

2.3. The Night Time Economy

Design strategies and technologies are also being deployed in order to profitably modulate and channel affect within the so-called night time economy. In recent decades, urban centres within the UK and other post-industrial societies have seen the development of alcohol-based night time economies as part of government-sponsored urban “regeneration” efforts (Hobbs et al., 2005). The cultivation of alcohol-based consumer economies and an attendant ‘culture of intoxication’ (Measham and Brain, 2005) has been accompanied by significant increases in problem drinking, alcohol-related violence, disorder, sexual assault and harassment, criminal damage, vandalism and noise (Hobbs et al., 2005).

Within the night time economy, the function of affective architectures is structured around a central tension: namely, the production and maintenance of a ‘controlled suspension of constraints’ (Hayward and Hobbs, 2007: 446). The manufacture of affective atmospheres is geared towards *encouraging* and monetising the hedonistic pursuit of excitement – of which harmful binge drinking is an obvious example – while simultaneously *discouraging* disorder and its disruptive effects on commerce. The means of such control are multifaceted and include the formal controls applied by door staff, but also encompass both the physical configuration and design of night time economy venues – décor, furnishing and lighting – as

well as subtler ‘manipulations of mood’ (Hadfield, 2006). Hadfield gives the example of nightclub DJs: ‘Although regarded as a musical expert, the primary function of the mainstream DJ is to... *create an atmosphere of carefully orchestrated abandon*’ (2006: 99, emphasis added). DJs thus play a key role in modulating affect within the night time economy: negotiating the tension between, on the one hand, ‘poor entertainment’ that ‘can induce boredom and resentment among customers and stimulate heavier drinking’ and on the other hand, the aggression that may result from, ‘heightened states of arousal’ (Hadfield, 2006: 98). Accordingly, ‘DJs have to induce affects of excitement, joy and exhilaration through their manipulation of light, music and other sounds, whilst employing the same tools to keep these affects at a manageable level’ (Shaw, 2010: 899). Of course, even the most precisely engineered and regulated atmospheres are prone to failure or to the production of unintended effects: ‘power cuts, the ordering of certain songs, the mixture of different lights and sounds, or the overall atmosphere of a city on a given night may all generate’ unforeseen consequences (Shaw, 2010: 900). And all of this is ‘further complicated by the interaction with subjectivities and bodies that are altered through the consumption of alcohol, or drugs more broadly’ (Shaw, 2010: 900).

While DJs are perhaps inadvertent curators of affect, recent work by Schuilenburg and Peeters points to a project in one of the Netherlands’ busiest nightlife streets where sound, smell and lighting design are being deployed in a *proactive* attempt to ‘defuse aggressive situations’ (2018: 4). Eindhoven’s “De-escalate” project seeks to prevent ‘potential violent conflicts between visitors by changing the intensity and colour of light for instance when the density in the area increases’ (Schuilenburg and Peeters, 2018: 5). Here, physiological and psychological ‘triggers are used to stimulate an efficient, safe and’ – crucially – ‘*consumption-focused* use of space through’ atmospheric and ‘architectural interventions that intend to mould the behaviour of the users of that space’ (Schuilenburg and Peeters, 2018: 5, emphasis added). As Hall and colleagues note, ‘consumer culture’s values and laws now lie at awkward tangents to each other’: amidst a maelstrom of ‘socially destructive values and practices’ (2008: 268), it seems spatial technologies of affect are now simultaneously enrolled in attempts to elicit a range of physiological and psychological traits – and to constrain them.

3. THEORISING PERSUASION ARCHITECTURES

As the preceding examples should make clear, consumer spaces – from shopping malls and department stores to casinos, betting shops, bars, nightclubs and innumerable other sites within the late modern city – are now deliberately designed in order to subtly influence human perceptions and behaviour *beyond* our conscious awareness. In doing so, what we might call – following the techno-sociologist, Zeynep Tufekci (2017) – *physical ‘persuasion architectures’* circumscribe and reconfigure the possibilities for action within a growing number of spaces. The implications of such developments are wide-ranging, especially considering that for many commentators, we are now witnessing a generalised territorialisation of such architectural principles *throughout* the late modern city (see Kohn, 2001). This is exemplified by the proliferation of “malls without walls” – ‘open-air [retail and] property complexes which also own and control the streets, squares and open spaces of the city’ (Minton, 2012: 15) – along with other sprawling territories of “mass private property” (Shearing and Stenning, 1981). Architect and scholar Anna Klingmann notes that:

while the spatialization of brands was first realized in the formation of isolated flagship stores and shopping malls, it has over the course of the last two decades reached another level as a ubiquitous formula of market culture that permeates urban centers, edge cities, and residential communities alike. (2007: 81)

How, then, are we to make sense of this emergent biopolitical strategy, that appears to call into question longstanding criminological and sociological understandings of sovereign subjectivity, agency, aetiology and power? In the remainder of this article, I suggest that the prevalence of such persuasion architectures necessitates that criminologists rethink the distinctions and interrelationships between human subjectivity and agency, and the (urban) environment. I then explore the implications of this conceptual reorientation – first, for our understandings of agency, intentionality, moral responsibility and political accountability; and second, for criminological thinking around embodied difference, power and exclusion.

3.1. Reimagining the city

Healey (2014), in his discussion of contemporary retail environments' use of air conditioning, offers a pertinent and incisive analysis that provides us with a useful starting point. For Healey, the type of design strategies and technologies described above have the effect of 'involuntarily engag[ing] the affective sensibilities' of consumers (2014: 36). Healey describes the resulting 'involuntary vulnerability' – whereby visitors are unwittingly induced to consume – as a form of *desubjectification*: a deliberate diminishment of agency and 'purposive intention' (2014: 40). Yet it seems to me that agency – considered within the context of such persuasion architectures – is not merely diminished, but rather is distributed, decentred, dispersed. Particularly instructive here are the insights associated with the so-called 'nonhuman turn': a range of interrelated critical theoretical approaches within the humanities and social sciences, 'engaged in decentering the human in favor of a turn toward and concern for the nonhuman, understood variously in terms of... affectivity, bodies... materiality, [and] technologies' (Grusin, 2015: xvii). This 'turn' encapsulates (but is not limited to) actor-network theory (ANT), affect theory, assemblage theory, new materialism and object-oriented philosophy. Of specific relevance to the present discussion is the reconceptualisation of urban space and agency suggested by some of these approaches – particularly ANT and assemblage theory – which necessitate that we rethink the distinctions and interrelationships between human subjectivity and agency, and nonhuman environments and technologies.

For Amin and Thrift, the city is best understood as assemblage comprised of 'a set of constantly evolving systems or networks... which intermix categories like the biological, technical, social, economic, and so on' (2002: 78). Viewed from this perspective, 'modern cities become spaces of flow and mixture, promiscuous 'meshworks'' (Amin and Thrift, 2002: 81). Amin and Thrift are by no means alone here; numerous other commentators have conceived of the interface between the (human) body and the city in terms of cyborgian hybridity: prostheses, exoskeletons, life-support systems (Vidler, 1990; Grosz, 1995; Swyngedouw, 1996; Gandy, 2005). Crucially, such approaches problematise 'the distinction between subject (organism) and object (environment)', since the city is reimagined here as 'a swirl of forces and intensities, which traverse and bring into relation all kinds of actors, human and non-human, in all manner of combinations of agency' (Amin and Thrift, 2002: 78, 83).

3.2. Distributed agency and aetiology

The upshot of such approaches is that human intentionality can no longer be located ‘in individuals... but has to be treated... as a function of complex material systems, which cut across individuals (assemblages) and which traverse... organismic boundaries (rhizomes)’ (Ansell-Pearson, 1999: 171). This necessitates ‘the articulation of a *distributed* conception of agency’ (Ansell-Pearson, 1999: 171, emphasis in original). Other proponents of the hybrid epistemologies suggested by the nonhuman turn draw similar conclusions. Gandy, for instance, notes that:

The blurring of boundaries between the body and the city raises complexities in relation to our understanding of the human subject and the changing characteristics of human agency. An extended conception of human agency would include, for instance, the role of biophysical processes and socio-cultural technological systems that impact upon the production of space. (2005: 33)

This position is echoed most cogently by the political theorist Jane Bennett, who advances a ‘congregational understanding of agency’ arising from ‘the collaboration, cooperation or interactive interference of many bodies and forces’ (2010: 20-21). Bennett clarifies:

bodies enhance their power *in or as a heterogeneous assemblage*. What this suggests for the concept of *agency* is that the efficacy or effectivity to which that term has traditionally referred becomes distributed across an ontologically heterogeneous field, rather than being a capacity localized in a human body or in a collective produced (only) by human efforts. (2010: 23, emphasis in original)

Since the late 1980s, criminology has experienced an ‘aetiological crisis’: an inability to explain criminal motivation (Young, 1997). On both sides of the Atlantic, between the 1960s and 1990s, crime continued to rise despite full employment and decreasing levels of poverty – seemingly undermining liberal explanations of the causes of crime (Matthews, 2016; Young, 1997). At the same time, ‘the observation that recorded crime continued to increase... despite

the significant growth of incarceration served to undermine... conservative claims that getting tough on crime would serve to reduce it' (Matthews, 2016: 4). In recent years, this crisis has only been compounded by the failure of criminologists to provide a convincing explanation for the *decrease* in recorded crime in Britain, North America and other countries since the early 1990s (Matthews, 2016).

As the preceding discussion should make clear, when regarded from the perspective of approaches that have sought to decenter the human and to more fully acknowledge the role of affectivity, materiality and technologies, questions of motivation are further complicated still. Criminology is hereby faced with a new kind of dilemma (Brown, 2006): an aetiology that rests not on whether it is possible to specify motivations, cognition and causes of individual or collective human behaviour, but rather on explaining human actions with reference to their situation and constitution within heterogeneous 'machinic assemblages' (Roberts, 2012). "Social theory" alone is simply no longer 'adequate to comprehend contemporary forms of criminality' (Brown, 2006: 236). Rather, researchers must draw on other disciplinary knowledges, such as (in the present discussion) those enrolled in the engineering of affect. Most obviously, criminologists must reorient our existing understandings of crime, deviance and harm that occurs within and among both consumer spaces and the affective 'brandscaping' (Murakami Wood and Ball, 2013) of the late modern city more generally, in order to consider the role of the kind of design strategies and technologies outlined above. The aetiology of *hyperconformist* aggressive, violent or harmful behaviours – 'shopping with violence', shoplifting, and looting (Smith and Raymen, 2017); compulsive gambling and associated harms; and alcohol-related violence and disorder – can no longer be ascribed to the sovereign human subject. Rather, we must understand these deviant, criminal or harmful events as emerging from 'the collaboration, cooperation or interactive interference of... bodies and forces' (Bennett, 2010). Thus, harm is *co-constituted* between a clearly identifiable offender, its spatial context, 'the calculated intentions of architects, designers, and market researchers' to maximise profits (Roberts, 2012: 2513), and so on.

An understanding of agency as a collaboration or 'confederation of human and nonhuman elements' also has implications for how we think about 'moral responsibility and political accountability' (Bennett, 2010: 21). It certainly seems 'hard to assign the strongest or most

punitive version of moral responsibility' to individuals, given that '[a]utonomy and strong responsibility seem... to be empirically false' (Bennett, 2010: 37). However, the notion of 'confederate agency' does not 'abandon the project of identifying... the sources of harmful effects' (Bennett, 2010: 37). Rather, it simply recognises that although 'humans and their intentions participate... they are not the sole or always the most profound actant in the assemblage' (Bennett, 2010: 37). Ultimately, Bennett writes:

a politics devoted too exclusively to moral condemnation and not enough to a cultivated discernment of the web of agentic capacities can do little good. A moralized politics of good and evil, of singular agents who must be made to pay for their sins... becomes unethical to the degree that it legitimates vengeance... An understanding of agency as distributive and confederate thus reinvokes the need to detach ethics from moralism and to produce guides to action appropriate to a world of vital, crosscutting forces. (2010: 38)

Quite contrary to any absolution of individual moral culpability or the intellectual neglect of aetiology, such a counterintuitive approach realises a properly *more-than-human* and *sociologically imaginative* conception of agency and responsibility (Pyyhtinen, 2016; Wright Mills, 1959). Heeding the insights of the nonhuman turn thus enables us to grasp behaviour and motivation as constituted through a machinic entanglement of power, materiality, bodies and affect.

3.3. Discrimination by design? Embodied difference and persuasion architectures

Writing on affective geographies has been criticised by feminist scholars, amongst others, for its neglect of issues of power and embodied difference (Tolia-Kelly, 2006; Sharp, 2009). Indeed, early attempts to theorise affect appear to presume an undifferentiated "universal" (white, male) body as an object of study (see, for example, Thrift, 2008). Neglected in such analyses 'is a focus on geometries of power and historical memory that figure and drive affective flows and rhythms' (Tolia-Kelly, 2006: 213). Criminologists, attendant to issues such as social control and exclusion, should thus recognise that:

affective registers have to be understood within the context of power geometries that shape our social world, and thus research in this field requires an engagement with the political fact of different bodies having different affective capacities. (Tolia-Kelly, 2006: 213)

In other words, *'not all bodies exert the same affective force'*; and of particular relevance to the present discussion, consumer spaces *'do not affect all bodies in the same way'* – and nor are they intended to (Miller, 2014b: 53, emphasis in original). Indeed, Miller found that social differences around respondents' race, class and gender were important in framing their accounts of what consumer spaces *felt* like (2014b: 52). It is partly for this reason that the "impact" of affective architecture should be thought of in terms of a *'modulation of a body's power of action'* (Duff, 2013: 221, emphasis added), that can fluctuate according to and between 'various constellations of identities' (Miller, 2014b: 56).

The implications of such differentiated affective power are profound. Perhaps first and foremost, criminologists seeking to integrate an understanding of affective engineering must consider how differentially gendered, classed and raced bodies are variously targeted by consumer environments' design and technologies for both *inclusion* and *exclusion*. Feminine and masculine bodies, for instance, are differentially enrolled and entrained by a host of gendered and sexualised affects, engineered within a largely patriarchal, hetero-normative retail landscape (Goss, 1993; van Eeden, 2007; Doan, 2010). Men and women also engage with and negotiate urban space differently. Thus, the male / female:

shopper is not merely the object of a technical and patriarchal discourse and design, but... also... may interpret [in] the design aberrantly or intentionally appropriate meaning for his/her own purposes. *The manner in which the shopping center is read by consumers, both as individuals and social subjects, is a complex and politically vital question.* (Goss, 1993: 19, emphasis added)

Women are constantly solicited as potential recreational shoppers in everyday life – through advertisements in public space, in newspapers and magazines, on television and online (Shields, 1997; Rosewarne, 2005). It is against this backdrop that women are targeted by retail

environments' persuasion architectures, which seek to subtly prompt patriarchal and heteronormative forms of "lifestyle" consumption. It is also perhaps for this reason studies indicate that 'female-oriented' customers are more susceptible to atmospheric behavioural cues (Borges et al., 2013) and 'engage more strongly in affective impulse buying than men' (Coley and Burgess, 2003: 286). Thus, women are disproportionately exposed to opportunities for making unplanned purchases, and the harms associated with impulsive and compulsive buying behaviour: debt, anxiety, stress, domestic disputes (O'Guinn and Faber, 1989).

In line with emerging hierarchies of social status oriented around consumption, differentially *classed* bodies are also targeted for exclusion and control by consumer environments' affective architectures. "Class" and other forms of social status – alongside, gender, race and sexuality – are emotionally and affectively mediated (Tyler, 2008). Perhaps nowhere is this more apparent than in the 'intensely affective figure' of the "chav" (Tyler, 2008: 17). The discourse surrounding the "chav" marginalises and pathologises groups of body-subjects 'in relation to the sphere of consumption' (Hayward and Yar, 2006: 10). Hayward and Yar explain:

The perceived 'problem' with this 'new underclass' is that they consume in ways deemed 'vulgar' and hence lacking in 'distinction' by superordinate classes. Thus... 'chavs' and 'chavishness' are identified on the grounds of the taste and style that inform their consumer choices [of] clothing (branded or designer 'casual wear' and 'sportswear'), jewellery ('chunky' gold rings and chains), cosmetics ('excessive' make-up, sunbed tans), accessories (mobile phones), drinks ('binge' drinking, especially 'premium lagers' such as Stella Artois), and music (R&B, hip-hop). (2006:14)

Tyler notes how such "'signs of chavness'", have been increasingly used to police access' to pseudo-public consumer 'spaces, such as nightclubs and shopping centres' (2008: 29). This ostensibly trivial "fashion policing" (Treadwell, 2008) reveals:

the ways in which the figure of the chav materialises and is realised in everyday practices. The figure of the chav is imbued with negative affect, this affect then travels, it circulates and leaks out into public space and shapes everyday perceptual practices foregrounding

the disturbing ease with which imagined “emotional qualities slide into corporeal qualities” (Ngai 2005, p. 573). Chav disgust is felt and lived. (Tyler, 2008: 29).

Differentially raced – and particularly, white and non-white – bodies are also subjected to affective regimes of inclusion and exclusion within consumer spaces. Criminologists and geographers have shown how policies such as situational crime prevention entrench socio-spatial exclusion, intensifying social divisions rooted in class and race (Herbert and Brown, 2006). The divisions and inequities reproduced through these strategies of governance are further intensified by the emerging biopolitical techniques discussed here.

Recent work from within urban studies has drawn attention to exclusionary processes of *affective displacement*: ‘the embodiment of a sense of ‘otherness’’, of not – or of no longer – belonging (Butcher and Dickens, 2016: 801). Writing about the consumption-led “regeneration” of Hackney (a district of North East London), Butcher and Dickens note how the ‘ambience of a place... now visibly populated by’ predominantly white ‘young professionals’ and ‘the imposing blocks of new ‘affordable luxury’ condominiums that replace social housing estates, generated *atmospheres of exclusion*’ for young black and minority ethnic people, often resulting in practices of avoidance (2016: 802, emphasis added).

Consumption-oriented pseudo-public spaces – such as those discussed by Butcher and Dickens’ research participants – differ fundamentally from the idealised public street in that they are strongly bounded and purified social spaces (Goss, 1993). (Suburban) shopping malls in particular have long been spaces for the *white* middle classes (Goss, 1993). And what makes these spaces ‘attractive to some consumers (white middle class women, for example) is achieved at the cost of excluding others (including young, working class, ethnic minority men)’ (Jackson, 1999: 36). Recall that for many commentators, we are now witnessing a generalised territorialisation of the architectural principles embodied in the shopping mall *throughout* the late modern city (see Kohn, 2001) – and attendant forms of inequality. Affective atmospheres tinged by race and class take the form of an ‘indeterminate, spatially extended quality of feeling’ (Böhme, 1993: 118); a ‘distributed yet palpable... quality of environmental immersion that registers in and through sensing bodies’ (McCormack, 2008:

413). Such atmospherics – *intentionally designed or otherwise* – constitute diffuse, ethereal barriers to entry in addition to more overt forms of exclusion.

Parmar, writing in this journal, has noted the difficulty of disentangling “race” from class and other stratifying and exclusionary power structures and has suggested that, ‘within British criminology, there have been few analyses that have implemented an intersectional lens’ (2017: 35). As a final point, it is worth noting how race and class often intersect with age as vectors of exclusion. This is particularly evident when we consider consumer spaces’ *sonic* architecture. If music and sound are deployed in malls, bars and gambling spaces to encourage visitors to congregate, relax, drink and spend – they can also be deployed to encourage unwelcome visitors to disperse (Parker, 2018); particularly to deter and dissuade groups and behaviour deemed detrimental to consumption. Sonic interventions can create or change affective atmospheres, transforming ‘the ambience of a space, modulating its affective tonality’, by ‘tapping into the resonant frequency of objects [and] rendering the virtual vibrations of matter vaguely sensible’ (Goodman, 2010: 79, emphasis added). This is what happens when piped classical music is deployed by businesses to deter after-hours loitering. Here sound is ‘used as a marker of space’ – yet another affective barrier – that signals ‘inclusion to some and exclusion to others’ (whether they are aware of it or not), through its culturally conditioned associations: white, old, rich, elite (Hirsch, 2007: 354).

CONCLUSION

By bringing together work from within and outside criminology on consumer culture, space and more-than-human ontologies, this article has sought to conceptualise how “persuasion architectures” – design strategies and technologies intended to channel affect – are enrolled in consumer spaces. In particular, the article has sought to theorise the role of such strategically designed consumer spaces in modulating potentially criminogenic and harmful dispositions and behaviours. It is clear that affective infrastructures construct and constrain the possibilities for action, as well as the sensations and emotions experienced, within a growing number of sites throughout the late modern city. In particular, design strategies

employed to mobilise affect are being enrolled in order to elicit physiological and psychological traits conducive to consumption. Thus, visitors to such spaces are preconsciously drawn to impulsive forms of consumption: shopping, gambling or drinking further than they had originally intended. Since human behaviour cannot be straightforwardly choreographed in any deterministic sense, it seems likely that such affective infrastructures precipitate unintended, illicit, deviant and “pathological” forms of consumption: impulsive shoplifting and other forms of ‘extreme shopping’ (Smith and Raymen, 2017), binge drinking and problem gambling. Yet even non-criminal, culturally normalised forms of consumption generate a multitude of attendant harms, from wide scale environmental destruction and the perpetuation of antisocial subjectivities to addiction, indebtedness, domestic instability and interpersonal violence. The proliferation of affective infrastructures also brings with it new exclusionary processes and forms of discrimination. The implications of such developments for criminological and understandings of (the spatial production of) subjectivity, aetiology, power and difference – and indeed, for legal and ethical understandings of agency and responsibility – are profound.

Intentionality can no longer be attributed to the sovereign human subject. Rather, criminogenic aetiology must be located within complex and heterogeneous techno-social assemblages – and understood to be *co-constituted* between an identifiable offender, the cultural injunction to consume, and ‘the calculated intentions of architects, designers, and market researchers’ to maximise profits (Roberts, 2012: 2513). Issues of moral responsibility and political accountability must also be reconceptualised as emerging from a tangled web of bodies, technologies and agency.

In addition to transforming our understanding of aetiology, the conceptual reorientation set forth in this article also demands that we reframe criminological thinking around embodied difference, power and exclusion. We must recognise that differentially gendered, classed and raced bodies are variously targeted by consumer environments’ design and technologies for both *inclusion* and *exclusion*. Thus, existing social inequalities are perpetuated and exacerbated in innumerable, subtle, and often imperceptible ways.

References

- Adey, P. (2008) 'Airports, mobility and the calculative architecture of affective control', *Geoforum* 39(1): 438 – 451.
- Allen, J. (2006) 'Ambient power: Berlin's Potsdamer Platz and the seductive logic of public places', *Urban Studies* 43(2): 441 – 455.
- Amin, A. & Thrift, N. (2002) *Cities: Reimagining the Urban*. Cambridge: Polity.
- Anderson, B. (2011) 'Affect and biopower: Towards a politics of life', *Transactions of the Institute of British Geographers* 37(1): 28 – 43.
- Ansell-Pearson, K. (1999) *Germinal Life: The Difference and Repetition of Deleuze*. London: Routledge.
- Barrus, M. and Winstanley, C. (2016) 'Dopamine D3 receptors modulate the ability of win-paired cues to increase risky choice in a rat gambling task', *Journal of Neuroscience* 36(3): 785 – 794.
- Bennett, J. (2010) *Vibrant Matter: A Political Ecology of Things*. Durham, NC: Duke University Press.
- Bitner, M. J. (1992) 'The impact of physical surroundings on customers and employees', *The Journal of Marketing* 56(2): 57–71.
- Blaszczynski, A. (2013) 'A critical examination of the link between gaming machines and gambling-related harms', *Journal of Gambling Business and Economics* 7(3): 55 – 76.
- Böhme, G. (1993) 'Atmosphere as the fundamental concept of a new aesthetics', *Thesis Eleven* 36(1): 113 – 126.

Bramley, S. and Gainsbury, S. (2015) 'The role of auditory features within slot-themed social casino games and online slot machine games', *Journal of Gambling Studies* 31(4): 1735 – 1751.

Brown, S. (2006) 'The criminology of hybrids: Rethinking crime and law in technosocial networks', *Theoretical Criminology* 10(2): 223 – 244.

Butcher, M. and Dickens, L. (2016) 'Spatial dislocation and affective displacement: Youth perspectives on gentrification in London', *International Journal of Urban and Regional Research* 40(4): 800 – 816.

Campbell, E. (2013) 'Transgression, affect and performance: Choreographing a politics of urban space', *British Journal of Criminology* 53(1): 18 – 40.

Clarke, R. V. G. (1997) *Situational Crime Prevention: Successful Case Studies*. Albany, NY: Harrow and Heston.

Clarke, R. V. G. and Felson, M. (1993) *Routine Activity and Rational Choice*. London: Transaction.

Coleman, P. (2006) *Shopping Environments: Evolution, Planning and Design*. Oxford: Architectural Press.

Coley, A. and Burgess, B. (2003) 'Gender differences in cognitive and affective impulse buying', *Journal of Fashion Marketing and Management* 7(3): 282 - 295

Crawford, M. (1992) The world in a shopping mall. In: Sorkin, M. (ed.) *Variations on a Theme Park: The New American City and the Design of Public Space*. New York: Hill and Wang, pp. 3 – 30.

Crawford, A. and Hutchinson, S. (2016) 'Mapping the contours of 'everyday security': Time, space and emotion', *British Journal of Criminology* 56(6): 1184 – 1202.

Deleuze, G. and Guattari, F. (1987) *A Thousand Plateaus: Capitalism and Schizophrenia*. Trans. by B. Massumi. London: Bloomsbury.

Dixon, L., Trigg, R. and Griffiths, M. (2007) 'An empirical investigation of music and gambling behaviour', *International Gambling Studies* 7(3): 315 – 326.

Doan, P. (2010) 'The tyranny of gendered spaces – reflections from beyond the gender dichotomy', *Gender, Place & Culture*, 17(5): 635 – 654.

van Eeden, J. (2007) 'The gender of shopping malls', *Communicatio* 32(1): 38 – 64.

Finlay, K., Marmurek, H., Kanetkar, V. and Londerville, J. (2010) 'Casino décor effects on gambling emotions and intentions', *Environment and Behaviour* 42(4): 524 – 545.

Foucault, M. (1977) *Discipline and Punish: The Birth of the Prison*. Harmondsworth: Penguin.

Friedman, B. (2000) *Designing Casinos to Dominate the Competition*. Reno, NV: Institute for the Study of Gambling and Commercial Gaming.

Gandy, M. (2005) 'Cyborg urbanization: Complexity and monstrosity in the contemporary city', *International Journal of Urban and Regional Research* 29(1): 26 – 49.

Goodman, S. (2010) *Sonic Warfare: Sound, Affect and the Ecology of Fear*. Cambridge, MA: MIT Press.

Goss, J. (1993) 'The "magic of the mall": An analysis of form, function, and meaning in the contemporary retail built environment', *Annals of the Association of American Geographers* 83 (1): 18–47.

Griffiths, M. D. and Parke, J. (2005) 'The psychology of music in gambling environments: An observational research note', *Journal of Gambling Issues* 13. Available at: <http://jgi.camh.net/index.php/jgi/article/view/3685>

Grosz, E. (1995) Bodies-cities. In: Grosz, E. *Space, Time and Perversion*. London: Routledge, pp. 103 – 110.

Grusin, R. (2015) Introduction. In: Grusin, R. (ed.) *The Nonhuman Turn*. Minneapolis, MN: University of Minnesota Press, pp. vii – xxix.

Hadfield, P. (2006) *Bar Wars: Contesting the Night in Contemporary British Cities*. Oxford: Oxford University Press.

Haggerty, K. D. and Ericson, R. V. (2000) 'The surveillant assemblage', *British Journal of Sociology* 51(1): 605–622.

Hall, S., Winlow, S. and Ancrum, C. (2008) *Criminal Identities and Consumer Culture: Crime, Exclusion and the New Culture of Narcissism*. Cullompton: Willan.

Hansen, M. and Rossow, I. (2010) 'Limited cash flow on slot machines: Effects of prohibition of note acceptors on adolescent gambling behaviour', *International Journal of Mental Health and Addiction* 8(1): 70 – 81.

Hayward, K. (2004) *City Limits: Crime, Consumer Culture and the Urban Experience*. London: GlassHouse Press.

Hayward, K. (2007) 'Situational crime prevention and its discontents: Rational choice theory versus the "culture of now"', *Social Policy & Administration* 41(3): 232 – 250.

Hayward, K. (2012) 'Five spaces of cultural criminology', *British Journal of Criminology* 52(3): 441 – 462.

Hayward, K. and Hobbs, D. (2007) 'Beyond the binge in 'booze Britain': Market-led liminalization and the spectacle of binge drinking', *British Journal of Sociology* 58(3): 437 – 456.

Hayward, K. and Kindynis, T. (2013) 'Crime-consumerism nexus' in J.I. Ross, (ed.) *Encyclopedia of Street Crime in America*. London: SAGE, pp. 123 - 126

Hayward, K. and Smith, O. (2017) Crime and consumer culture. In: Liebling, A., Maruna, S. and McAra, L. (eds.) *The Oxford Handbook of Criminology*. Oxford: Oxford University Press, pp. 306 – 328.

Hayward, K. and Yar, M. (2006) 'The 'chav' phenomenon: Consumption, media and the construction of a new underclass', *Crime, Media, Culture* 2(1): 9 – 28.

Healey, S. (2014) 'Atmospheres of consumption: Shopping as *involuntary vulnerability*', *Emotion, Space and Society*, 10: 35 – 43.

Herbert, S. and Brown, E. (2006) 'Conceptions of space and crime in the punitive neoliberal city', *Antipode* 38(4): 755 – 777.

Hirsch, A. R. (1995) 'Effects of ambient odors on slot-machine usage in a Las Vegas casino', *Psychology and Marketing* 12: 585–94.

Hirsch, L. E. (2007) 'Weaponizing classical music: Crime prevention and symbolic power in the age of repetition', *Journal of Popular Music Studies* 19(4): 342 – 358.

Hobbs, D., Winlow, S., Hadfield, P. and Lister, S. (2005) 'Violent hypocrisy: Governance and the night-time economy', *European Journal of Criminology* 2(2): 161 – 183.

Jackson, P. (1999) 'Consumption and identity: The cultural politics of shopping', *European Planning Studies* 7(1): 25 – 39.

Klingmann, A. (2007) *Brandscapes: Architecture in the Experience Economy*. Cambridge, MA: MIT Press.

Kohn, M. (2001) 'The mauling of public space', *Dissent*, Spring, 72 – 77.

Kwinter, S. (1996) 'Virtual city, or the wiring and waning of the world', *Assemblage* 29: 86–101.

Ladouceur, R. and Sévigny, S. (2006) 'The impact of video lottery game speed on gamblers', *Journal of Gambling Issues* 17, 1 – 10.

Manzo, J. (2005) 'Social control and the management of "personal" space in shopping malls', *Space & Culture* 8(1): 83 – 97.

Matthews, R. (2016) 'Realist criminology, the new aetiological crisis and the crime drop', *International Journal for Crime, Justice and Social Democracy* 5(3): 2 – 11.

McCormack, D. (2008) 'Engineering affective atmospheres on the moving geographies of the 1987 Andrée expedition', *Cultural Geographies* 15(4): 413 – 430.

Measham, F. and Brain, K. (2005) '“Binge” drinking, British alcohol policy and the new culture of intoxication', *Crime Media Culture* 1(3): 262 – 283.

Minton, A. (2012) *Ground Control: Fear and Happiness in the Twenty-First Century City*. London: Penguin.

Miller, J. (2014a) 'Malls without stores (MwS): The affectual spaces of a Buenos Aires shopping mall', *Transactions of the Institute of British Geographers* 39(1): 14 – 25.

Miller, J. (2014b) 'Affect, consumption, and identity at a Buenos Aires shopping mall', *Environment and Planning A* 46(1): 46 – 61.

Monaghan, S. and Blaszczynski, A. (2010) 'Impact of mode of display and message content of responsible gambling signs for electronic machines on regular gamblers', *Journal of Gambling Studies* 26(1): 67 – 88.

Moxon, D. (2011) 'Consumer culture and the 2011 'riots'', *Sociological Research Online*, 16(4)19.

Murakami Wood, D. and Ball, J. (2013) 'Brandscapes of control? Surveillance, marketing and the co-construction of subjectivity and space in neo-liberal capitalism', *Marketing Theory* 13(1): 47 – 67.

O'Guinn, T. and Faber, R. (1989) 'Compulsive buying: A phenomenological exploration', *Journal of Consumer Research* 16(2): 147 – 157.

Parke, J. and Griffiths, M. (2006) 'The psychology of the fruit machine: The role of structural characteristics (revisited)', *International Journal of Mental Health and Addiction* 4(2): 151 – 179.

Parker, J. (2018) 'Sonic lawfare: On the jurisprudence of weaponised sound', *Sound Studies*. Published online ahead of print. <https://doi.org/10.1080/20551940.2018.1564458>

Parmar, A. (2016) 'Intersectionality, British criminology and race: Are we there yet?', *Theoretical Criminology* 21(1): 35 – 45.

Pyyhtinen, O. (2016) *More-Than-Human Sociology: A New Sociological Imagination*. Basingstoke: Palgrave Macmillan.

Richards, G. (1990) 'Atmosphere key to mall design', *Shopping Center World*, August: 23–29.

Roberts, T. (2012) 'From 'new materialism' to 'machinic assemblage': Agency and affect in IKEA', *Environment and Planning A: Society and Space* 44(10): 2512 – 2529.

Rosewarne, L. (2005) 'Outdoor advertising and public space: Gender, fear, and feminism', *Women's Studies International Forum*, 28: 67 – 78.

Schuilenburg, M. and Peeters, R. (2018) 'Smart cities and the architecture of power: Pastoral power and the scripted design of public space', *City, Territory and Architecture* 5: 13.
<https://doi.org/10.1186/s40410-018-0090-8>

Schüll, N. D. (2012) *Addiction by Design: Machine Gambling in Las Vegas*. Princeton, NJ: Princeton University Press.

Sharp, J. (2009) 'Geography and gender: What belongs to feminist geography? Emotion, power and change', *Progress in Human Geography* 33(1): 74 – 80.

Shaw, R. (2010) 'Neoliberal subjectivities and the development of the night-time economy in British cities', *Geography Compass* 4(7): 893 – 903.

Shearing, C. and Stenning, P. (1981) 'Modern private security: Its growth and implications', *Crime and Justice*, 3: 193–245.

Shearing, C. and Stenning, P. (1984) 'From the panopticon to Disney World: The development of discipline. In: Doob, A. and Greenspan, E. (eds.) *Perspectives in Criminal Law*. Toronto: Canada Law Book, pp. 336–349.

Shields, R. (1992) Spaces for the subject of consumption. In: Shields, R. (ed.) *Lifestyle Shopping: The Subject of Consumption*. London: Routledge, pp. 1 – 20.

Shields, V. R. (1997) 'Selling the sex that sells: Mapping the evolution of gender advertising research across three decades', *Annals of the International Communication Association*, 20(1): 71 – 109.

Simmel, G. (1971) *On Individuality and Social Forms*. Edited by D.N. Levine. Chicago: University of Chicago Press.

Smith, O. and Raymen, T. (2017) 'Shopping with violence: Black Friday sales in the British context', *Journal of Consumer Culture* 17(3): 677 – 694.

Spenny, J., Barrett, D. and Griffiths, M. (2010) 'The role of light and music in gambling behaviour: An empirical pilot study', *International Journal of Mental Health and Addiction* 8(1): 107 – 118.

Stark, G., Saunders, D. and Wookey, P. (1982) 'Differential effects of red and blue coloured lighting on gambling behaviour', *Current Psychology* 2(1-3): 95 – 99.

Swyngedouw, E. (1996) 'The city as a hybrid: On nature, society and cyborg urbanisation', *Capitalism, Nature, Socialism* 7(2): 65 – 80.

Thrift, N. (2008) *Non-Representational Theory: Space, Politics, Affect*. London: Routledge.

Tolia-Kelly, D. P. (2006) 'Affect – an ethnocentric encounter? Exploring the 'universalist' imperative of emotional / affectual geographies', *Area* 38(2): 213 – 217.

Treadwell, J. (2008) 'Call the (fashion) police: How fashion becomes criminalised', *Papers from the British Criminology Conference* 8: 117 – 133.

Treadwell, J., Briggs, D., Winlow, S. and Hall, S. (2013) 'Shopocalypse Now: Consumer culture and the English riots of 2011', *British Journal of Criminology* 53(1): 1 – 17.

Tufekci, Z. (2017) 'We're building a dystopia just to make people click on ads', TED, October 27. Available at:

https://www.ted.com/talks/zeynep_tufekci_we_re_building_a_dystopia_just_to_make_people_click_on_ads?language=en (Accessed 16 January 2017).

Turley, L. W. and Milliman, R. E. (2000) 'Atmospheric effects on shopping behavior: A review of the experimental evidence', *Journal of Business Research* 49: 193 – 211.

Venturi, R., Scott Brown, D. and Izenour, S. (1972) *Learning from Las Vegas*. Cambridge, MA: MIT Press.

Vidler, A. (1990) 'Case per cyborg: Protesti domestiche da Salvador Dali a Diller e Scofidio' ['Homes for cyborgs: domestic prostheses from Salvador Dali to Diller and Scofidio'], *Ottagono* 96: 36 – 55.

Welsh, M., Jones, R., Pykett, J. and Whitehead, M. (2014) The “problem gambler” and socio-spatial vulnerability. In: Gobet, F. and Schiller, M. (eds.) *Problem Gambling: Cognition, Prevention and Treatment*. Basingstoke: Palgrave Macmillan, pp. 156 – 187.

Wright Mills, C. (1959) *The Sociological Imagination*. Oxford: Oxford University Press.

Yelanjian, M. (1991) 'Rhythms of consumption', *Cultural Studies* 5(1): 91 – 7.

Young, A. (2010) The scene of the crime: Is there such a thing as 'just looking'? In: Hayward, K. and Presdee, M. (eds.) *Framing Crime: Cultural Criminology and the Image*. Oxon: Routledge, pp. 83–97.

Young, J. (1997) Left realist criminology: Radical in its analysis, realistic in its policy. In: Maguire, M., Morgan, R. and Reiner, R. (eds.) *The Oxford Handbook of Criminology*. Oxford: Oxford University Press, pp. 473 – 498.