Power Nap

Visualising sleep and neoliberal governmentality

A Master's Thesis for the Degree of Master of Arts (120 Credits) in Visual Culture

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Abstract

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This thesis explores how representations of sleep and sleeplessness in mass culture can be reflective of shifts in the constitution of time and self-image driven by neoliberal capitalism, using *Shattered,* a reality TV show and *Sleep Cycle,* a self-tracking app, as points of analysis.

The first part of the thesis introduces various discourses around sleep, optimisation and productivity that exist in present day late capitalism, and authors and theorists who have studied them. Theories that outline the effects of capitalism on temporalities of daily life and selfhood more generally are then discussed, using Teresa Brennan, David Harvey, Jonathan Crary and Georges Gurvitch as key sources.

In the second part, the cultural context and influence of reality TV and the 'Quantified Self' self-tracking movement are discussed, followed by separate discourse analyses of both materials which identify key discourses present throughout both.

In the final part, these discourses are contextualised within the contemporary neoliberal model of capitalism and the values of self-government and flexibility that it promotes, rooted in Foucauldian theories on governmentality and biopower.

The thesis concludes by discussing the roles of visuality and screen technologies as an interface for biopower, the difficulties in defining governmentality, subjectivity, and self-government in neoliberalism, and the complex position of sleep in power structures that by nature have the effect of changing everyday time and relations with the body.

Eilidh Urquhart

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Introduction

According to many, sleep deprivation is a "catastrophic" "modern epidemic" and sleep "should be prescribed".[1] It has been identified as a serious concern by both Public Health England in the UK and the Centers for Disease Control and Prevention in the US.[2] The root of the epidemic has been tied to technology, social disadvantage, global inequality, long commutes, artificial light and many more factors by scientists and academics.[3] The suggested solutions for the epidemic usually point towards the healthcare and wellness sectors, while an increasing number of literature, articles, products and critiques surrounding the position of sleep and its necessity in modern society consistently emerge. Consequently, a market has emerged for sleep solution entrepreneurs around the world to tackle the problem.

In *Wild Nights*, writer Benjamin Reiss traces a lineage of solutions for the widespread sleeplessness problem in the Victorian era, when they had "all manner of electrified sleep gadgetry" in an effort to capture sleep "in their frantic, hyperconnected world".[4] These problems and their solutions are echoed in the present day; ghosts of the issues that punctuate human existence throughout time.

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[1] I. Johnston, '"Catastrophic" lack of sleep in modern society is killing us, warns leading sleep scientist', *The Independent*, 24 September 2017, https://www.independent.co.uk/news/sleep-deprivation-epidemic-health-effects-tired-heart-disease-stroke-dementia-cancer-a7964156.html (accessed 25 April 2018).
R. Cooke," '"Sleep should be prescribed": what those late nights out could be costing you', *The Guardian*, 24 September 2017, http://www.theguardian.com/lifeandstyle/2017/sep/24/why-lack-of-sleep-health-worst-enemy-matthew-walker-why-we-sleep (accessed 25 April 2018).
[2] J. Varney, 'Making the business case for sleep', *Public health matters*, [web blog], 18 January 2018, https://publichealthmatters.blog.gov.uk/2018/01/18/making-the-business-case-for-sleep/, (accessed 25 April 2018).
'1 in 3 adults don't get enough sleep', *Centers for Disease Control and Prevention*, [website], 2016, https://www.cdc.gov/media/releases/2016/p0215-enough-sleep.html, (accessed 15 May 2018).
'CDC - About Our Program - Sleep and Sleep Disorders', *Centers for Disease Control and Prevention*, [website], 2017, https://www.cdc.gov/sleep/about_us.html, (accessed 25 April 2018).
[3] N. Davis, 'Want a good night's sleep? Spend less time with your phone, say scientists', *The Guardian*, 9 November 2016, http://www.theguardian.com/lifeandstyle/2016/nov/09/want-a-good-nights-sleep-spend-less-time-with-your-phone-say-scientists, (accessed 25 April 2018).
C. Czeisler, 'Perspective: Casting light on sleep deficiency', *Nature*, 497, 2013, S13.
'The Guardian view on sleep deprivation: who can afford forty winks?', *The Guardian*, 15 March 2018, http://www.theguardian.com/commentisfree/2018/mar/15/the-guardian-view-on-sleep-deprivation-who-can-afford-forty-winks, (accessed 25 April 2018).
Lauderdale, DS, KL Knutson, LL Yan, PJ Rathouz, SB Hulley, S Sidney, et al., 'Objectively Measured Sleep Characteristics among Early-Middle-Aged Adults', *American Journal of Epidemiology*, 164, 2006, p.5–16.
J. Tozer, 'Which countries get the most sleep?', *1843 Magazine*, April 2018, https://www.1843magazine.com/data-graphic/what-the-numbers-say/which-countries-get-the-most-sleep (accessed 25 April 2018).
Johnston, '"Catastrophic" lack of sleep in modern society is killing us, warns leading sleep scientist'.
Santhi, N, HC Thorne, DR van der Veen, S Johnsen, SL Mills, V Hommes, et al., 'The spectral composition of evening light and individual differences in the suppression of melatonin and delay of sleep in humans', *Journal of Pineal Research*, 53, 2012, p.47–59.
[4] B. Reiss, Wild nights: how taming sleep created our restless world. New York, Basic Books, 2017. p.178.

Companies leading the way in 'employee benefits' are installing sleep pods for employees in their offices, sleep schools exist to rehabilitate the sleepless, an endless stream of devices, nootropic stimulants and new technologies are released to tackle the widely reported problem of sleep deprivation.[5] One weighted blanket device is described as "a fantasy of immobilisation" in the context of a fast-paced world fraught with the necessity to move and to perform.[6] According to reports by McKinsey and Globe Newswire, the north American "sleep-health economy" has "historically grown by more than 8 percent per year, with few signs of slowing down" and is expected "to account for US$80.8 Bn by 2020".[7] Capitalism is selling our sleep back to us as the new commodity and the "ultimate status symbol".[8] Arianna Huffington, co-founder of *The Huffington Post,* has positioned herself as a modern sleep evangelist after releasing a book in 2016 arguing the need for a "sleep revolution", consistently with her business interests as CEO of a "corporate and consumer well-being platform" and embodying a new form of neoliberal wellness initiatives originating in corporate culture.[9]

Meanwhile, sleeplessness remains in some circles a form of personal endurance more reminiscent of the outmoded wall-street culture of the ruthless neoliberal 1980s, where 'time is money and money is power'. Sleep is inactivity and inactivity is death – epitomised by the phrase "rest in peace". Sleeplessness is often used to boast a commitment to hard work in corporate and political positions, with reference made to some of the so-called "sleepless elite" such as Donald

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[5] A. Cassidy, 'Clocking off: the companies introducing nap time to the workplace', *The Guardian*, 4 December 2017, http://www.theguardian.com/business-to-business/2017/dec/04/clocking-off-the-companies-introducing-nap-time-to-the-workplace (accessed 25 April 2018).
Sleep School, [website], https://thesleepschool.org/insomnia, (accessed 25 April 2018).
M. Jancer, 'The Gently Breathing Somnox Robot Cuddles You to Sleep', *Wired*, 9 April 2018, https://www.wired.com/story/somnox-sleep-robot/ (accessed 25 April 2018).
M. Prospero, 'I Slept in Tom Brady's Bioceramic Pajamas', *Tom's Guide*, 6 February 2017, https://www.tomsguide.com/us/tom-brady-pajamas,review-4163.html (accessed 25 April 2018).
[6] J. Tolentino, 'The Seductive Confinement of a Weighted Blanket in an Anxious Time', *The New Yorker*, 26 February 2018, https://www.newyorker.com/culture/on-and-off-the-avenue/the-seductive-confinement-of-a-weighted-blanket-in-an-anxious-time (accessed 25 April 2018).
[7] 'Global Sleep Aids Market Will Reach US$80.8 Bn by 2020: Persistence Market Research', *GlobeNewswire News Room*, 31 July 2015, http://globenewswire.com/news-release/2015/07/31/756724/10144080/en/Global-Sleep-Aids-Market-Will-Reach-US-80-8-Bn-by-2020-Persistence-Market-Research.html (accessed 25 April 2018).
D. Goldman, 'Investing in the growing sleep-health economy', *McKinsey & Company*, August 2017, https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/investing-in-the-growing-sleep-health-economy (accessed 25 April 2018).
[8] Al Jazeera English, *The Stream - Sleep: the new commodity?,* [online video], 3 May 2017, https://www.youtube.com/watch?v=MkkDRkWlj1s (accessed 15 May 2018).
A. Mahdawi, 'How a good night's sleep became the ultimate status symbol', *The Guardian*, 1 June 2016, http://www.theguardian.com/lifeandstyle/2016/jun/01/sleep-habits-eight-hours-health-wellness-arianna-huffington, (accessed 25 April 2018).
[9] A. Huffington, 'A Sleep Revolution Will Allow Us to Better Solve the World's Problems', *Huffington Post*, 16 December 2015, https://www.huffingtonpost.com/arianna-huffington/a-sleep-revolution-will-allow-us-to-better-solve-the-worlds-problems_b_8818656.html (accessed 25 April 2018).

Trump, Marissa Mayer (former CEO of Yahoo!), Jack Dorsey (CEO of Twitter) and, more historically, ex-UK Prime Minister Margaret Thatcher and inventor Thomas Edison.[10] Professor of Labor Studies at Pennsylvania State University, Alan Derickson, identifies this as a culture of "manly wakefulness", taking note of the "cultural power" of the "business community".[11]

Different sleep cultures have materialised as a reaction to a problem, an opportunity to manufacture solutions, and as an indicator of personal motivation usually tied to productivity. Arianna Huffington states that we are "in the middle of a cultural shift to reclaim sleep" from the bravado of corporate sleeplessness towards the self-management of corporate sleep-wellness.[12]

Although many studies support the idea that sleeplessness is a large scale problem, one study released in the *Sleep Medicine Review* medical journal in 2016 sought to investigate whether there has in fact been a decline in recorded sleep duration over the last 50+ years.[13] The resulting data "cast doubt on the notion of a modern epidemic of insufficient sleep", contradictory to "the cliché of an ever-expanding 24/7 society". Whilst the study found that empirical evidence of sleep in general has not changed, it does recognise that narratives of sleeplessness have changed or emerged, noting that it is "widely repeated hyperbole that never before in human history have

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[10] M. Melnich, 'Are You Among the "Sleepless Elite" - Or Just Sleep Deprived?', *Time*, 7 April 2011, http://healthland.time.com/2011/04/07/are-you-among-the-sleepless-elite-%E2%80%94-or-just-sleep-deprived/ (accessed 25 April 2018).
N. Schoenberg, 'Donald Trump's sleep-bragging highlights a broader issue', *Chicago Tribune*, 12 November 2015, http://www.chicagotribune.com/lifestyles/ct-sleep-bragging-donald-trump-20151112-story.html (accessed 25 April 2018).
D. Schools, 'Exactly How Much Sleep Mark Zuckerberg, Jack Dorsey, and Other Successful Business Leaders Get', *Inc.com*, 6 March 2017, https://www.inc.com/dave-schools/exactly-how-much-sleep-mark-zuckerberg-jack-dorsey-and-other-successful-business.html (accessed 25 April 2018).
S. Knapton, '"Thatcher gene" is key to needing less sleep', *Telegraph*, 1 August 2014, https://www.telegraph.co.uk/news/science/science-news/11006181/Thatcher-gene-is-key-to-needing-less-sleep.html (accessed 25 April 2018).
C. Cutrone and M. Nisen, '19 Successful People Who Barely Sleep', *Business Insider*, 18 September 2012, http://www.businessinsider.com/successful-people-who-barely-sleep-2012-9 (accessed 25 April 2018).
M. Popova, 'Thomas Edison, Power-Napper: The Great Inventor on Sleep and Success', *Brain Pickings*, 11 February 2013, https://www.brainpickings.org/2013/02/11/thomas-edison-on-sleep-and-success/ (accessed 25 April 2018).
[11] A. Derickson, *Dangerously sleepy: overworked Americans and the cult of manly wakefulness*. Philadelphia, University of Pennsylvania Press, 2014. p.142.
[12] A. Huffington, 'We're In the Middle of a Cultural Shift to Reclaim Sleep', [web blog], 26 March 2018, https://medium.com/thrive-global/were-in-the-middle-of-a-cultural-shift-to-reclaim-sleep-946a21a3a78d (accessed 25 April 2018).
[13] S. Stranges, et al., 'Sleep Problems: An Emerging Global Epidemic? Findings From the INDEPTH WHO-SAGE Study Among More Than 40,000 Older Adults From 8 Countries Across Africa and Asia', *Sleep*, 35, 2012, p.1173–1181.
M. Hafner, et al., *Why sleep matters -- the economic costs of insufficient sleep: A cross-country comparative analysis*. RAND Corporation, 2016, http://www.rand.org/pubs/research_reports/RR1791.html (accessed 14 May 2018).

we faced such challenges to our sleep".[14] This makes is particularly relevant to question why, if apparently objective sleep behaviours may have not changed, the way we talk about sleep has changed (and continues to change) so much.

An example of the effects of this cultural shift towards the problematisation and consequent optimisation of sleep is the reported emergence of "orthosomnia", a disorder defined by the *Journal of Clinical Sleep Medicine*.[15] In orthosomnia, patients committed to using sleep-tracking software end up self-diagnosing sleep disorders as a result of prioritising the truth of the 'objective' data of the device over their subjective experiences, which can then lead to new actual sleep disorders. The development of this problem suggests there is a balance to be struck for users flooded with this data and not yet accustomed to processing it usefully between the will to self-optimisation offered by the sleep-solutions previously described, and the understandings of the self that they aim to improve.[16]

As I will elaborate on later, much existing literature from Karl Marx to Jonathan Crary ties widespread sleeplessness to the increased pace of time in late capitalism. More recently, these place the constant flow of information and communication at the core of the problem, which also paradoxically become the foundations of the suggested sleep solutions described earlier.[17] Self-improvement and self-image in an environment of high speed information are both increasingly commodified and necessary, which is evidenced in discourses throughout marketing, popular culture and internet culture. Particularly given the reduced capacity of state welfare that often comes hand in hand with neoliberal policy in capitalism, health and wellness become increasingly personal endeavours - now presented as achievable with the help of the latest sleep device or Huffington publication. Notions of selfhood are central to this dynamic, with changing constitutions of time and political power structures having significant influence on them. How do changing economic and social demands, and the technologies that work to aid them, seek to distort and redefine our biology and personhood?

K. Keyes, et al., 'The Great Sleep Recession: Changes in Sleep Duration Among US Adolescents, 1991-2012', Pediatrics, 135, 2015, p.460–468.

[14] S. Youngstedt, et al., 'Has adult sleep duration declined over the last 50+ years?' in *Sleep Medicine Reviews*, 28, 2016, p.69–85.

[15] K. Baron, et al., 'Orthosomnia: Are Some Patients Taking the Quantified Self Too Far?', *Journal of Clinical Sleep Medicine*, 13, 2017, p.351–354.

[16] 'What Is Orthosomnia? All You Need To Know About It', *Doctor.ndtv.com,* [website], 30 March 2018, https://doctor.ndtv.com/living-healthy/what-is-orthosomnia-all-you-need-to-know-about-it-1830621 (accessed 25 April 2018).

[17] J. Crary, *24/7: late capitalism and the ends of sleep*. London; New York, Verso, 2013.
  K. Marx, *The Grundrisse*. New York, Harper & Row, 1972.

Aim and research question

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In this thesis, I will seek to explore this question by drawing on examples of portrayals of sleep in a sleep tracking app (*Sleep Cycle*) and a UK reality TV show from 2004 (*Shattered*).

I will build on scholarship outlining how the constitution of space and time have changed under industrialised capitalism - most notably in the blurring of work, life, management and time - and the effect of these on the body and self, and within the realm of sleep. Using these as a premise, I will consider how shifts in capitalist ideology towards a neoliberalism characterised by the veneration of individuality, flexibility and achievement, and enacted through forms of surveillance (and self-surveillance) are reflected in the constitution and management of the self in seemingly 'apolitical' mass visual culture. More specifically, I will use examples and scholarship that focus on the theme of sleep - the least capital-productive human bodily activity.

My aim is to identify how representations and understandings of sleep in mass culture reflect the effects of neoliberalism on the understanding and constitution of the self of its subjects.

Background and relevance

Different prominent narratives around sleep co-exist and sometimes overlap, despite having separate motivations. Productivity, for example, is often presented as achievable both by eradicating sleep (which is a waste of time), and by optimising sleep, which increases human ability. The latter approach seems to be gaining prominence, but the co-existence of both narratives itself is revealing of cultural tension surrounding sleep.

In using apps and reality TV to probe discourses, I follow WJT Mitchell's rationale that "all media are mixed media", and are not only rooted in the so-called 'visual'.[18] Because my materials are from mixed sources in mixed formats, and involve vision, touch, sound, and language, visual culture, as the versatile and multi-faceted discipline that Mitchell describes, is the ideal discipline to unpack these materials. His assertion that images represent "vital signs" and

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[18] WJT. Mitchell, 'There Are No Visual Media', *Journal of Visual Culture*, 4, 2005, 257–266. p.261.

play important roles in social realms is relevant to my discussion of discourses and political structures - particularly in mass culture materials, which can reveal a mainstream narrative.[19] Additionally, images are increasingly key to fleeting temporalities found in consumer culture and the replacement of material commodities with the production of signs, images and sign systems, as outlined by Baudrillard.[20] The constitution of time is a relevant part of my discussion, and with images so rooted in temporality, they are apt to frame a moment in time. As David Harvey puts it, "if spatial and temporal experiences are primary vehicles for the coding and reproduction of social relations (as Bourdieu suggests), then a change in the way the former get represented will almost certainly generate some kind of shift in the latter".[21]

Empirical material and delimitation

The empirical material of the research comes from different aspects of what can be considered under the umbrella of "mass culture". The term "mass culture" is often used with negative connotations, and I use it in this case without this emphasis, but in line with a definition from Oxford Reference as "Cultural products that are both mass-produced and for mass audiences".[22] I define my use of "reality TV" throughout this thesis to describe "television programmes in which ordinary people are continuously filmed", in line with the Oxford Dictionary definition.[23]

The first material, *Shattered*, was a British reality TV show aired in 2004, which I will analyse in its entirety. The second is a mobile sleep tracking app, *Sleep Cycle*, initially released by Swedish developers in the mid-2000s but still popular in 2018. That both emerged from European sources in the mid-2000s (although it must be noted that *Shattered* is much more geographically limited in its dissemination than *Sleep Cycle*) is notable to the research, and these will be contextualised to fully frame their positions.

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[19] WJT. Mitchell, *What do pictures want? The lives and loves of images*. Chicago, Ill., Univ. of Chicago Press, 2010. p.6.

[20] J. Baudrillard, *Simulacra and simulation*. Ann Arbor, University of Michigan Press, 1994.

[21] D. Harvey, The condition of postmodernity: an enquiry into the origins of cultural change. Cambridge, Mass., USA, Blackwell, 1989. p.247.

[22] 'Mass culture - Oxford Reference', http://www.oxfordreference.com/view/10.1093/oi/authority.20110803100138730 (accessed 25 April 2018).

[23] 'Definition of reality TV in English by Oxford Dictionaries', https://en.oxforddictionaries.com/definition/reality_tv (accessed 25 April 2018).

Both examples represent differing narratives of sleep - in *Shattered*, sleep is something to be eliminated, whilst in *Sleep Cycle*, it is to be improved or optimised as part of general health and well-being. One belongs to the world of 'entertainment' and one belongs to 'reality' (although this is contentious). In my analysis, I will outline discourses present in both examples and then compare in which ways these are reflected across both.

Theory and methodology

In *Visual Methodologies*, Gillian Rose contends that "our sense of self is made through the operation of discourse", and it is for this reason relevant to look towards discourses to approach the theme of sleep, which is by nature rooted in selfhood.[24]

To approach the analysis of my empirical materials, I will therefore employ a Foucauldian discourse analysis, as outlined by Rose, to "explore how images construct specific views of the social world".[25] In doing this, I will make use of the flexibility of discourse analysis to navigate diverse materials (reality TV and smartphone apps) as part of *intertextuality* - that is to say, "the way that the meanings of any one discursive image or text depend (…) also on the meanings carried by other images and texts".[26]

In using a discourse analysis, I hope to pinpoint what Foucault calls 'regimes of truth' - "the particular grounds on which truth is claimed" - and 'discursive formations' - "the way meanings are connected together in a particular discourse" - found within them.[27] Following Foucault's ideas, I aim to uncover the complex relationship between these 'regimes of truth' that are not imposed through power from the top, but co-exist together.[28] Discourse, according to Foucault, "produces the world as it understands it", and it is this complexity, and the nature of human subjectivity, that I will focus on.[29]

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[24] G. Rose, *Visual methodologies: an introduction to researching with visual materials*. 4th edition, London, SAGE Publications Ltd, 2016. p.189
[25] Ibid., p.192.
[26] Ibid., p.188.
[27] Ibid., p.189-190.
[28] Ibid., p.191.
[29] Ibid., p.189.

Gillian Rose emphasises the importance in discourse analysis of focusing on contradictions and "the work that is done to reconcile conflicting ideas" as a way to uncover revealing processes of persuasion employed by 'regimes of truth'.[30] Following this, I will seek to highlight contradictions and the co-existence of different narratives that appear paradoxical.

My analysis of visual materials will centre on four main discourses extracted from and present across the two examples (*Sleep Cycle* and *Shattered*) that tie in to discourses and regimes of truth present in the theory I will build on.

I will use David Harvey's analysis of postmodernity and time, Georges Gurvitch's descriptions of the sociology of time and Jonathan Crary's analysis of the relationship between sleep, time, work and capitalism as the theoretical foundation of the societal aspects relating to time that are often cited as the premise for a sleeplessness epidemic. The position of the body in accelerated time will be introduced based on Teresa Brennan's analysis of globalization and Alan Derickson's work on the history of sleep in labor struggles in the US.

Neoliberalism, selfhood and biopower will be introduced in a chapter centred on Foucault's ideas of selfhood and subjectivity. Neoliberalism will further be described and defined using Carla Freeman and Byung-Chul Han analyses. Han's theories (adapted from Foucault) on the power dynamics present in neoliberal ideals will be a point of emphasis - these include the achievement society, (self-) surveillance, biopolitics/*psychopolitics*.

Ouellette and Hay, Ouellette and Murray, Mark Greif and Mark Poster's analyses of reality TV will inform the discussion of the relevance of reality TV and the analysis of the first empirical material, *Shattered*. For the second empirical material, *Sleep Cycle* app, Deborah Lupton and Jill Belli's analyses of digital Self-Quantification phenomena will form the basis to outline the cultural position and relevance of the material.

Previous research

The subjectivity of sleep in capitalism has been described or commented on by many authors and scholars (Penzin, Marx, Crary), and an interdisciplinary field of research calling itself "sleep

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[30] Ibid., p.216.

cultures" has emerged, primarily based on the scholarship of a few researchers and artists.[31] Much of the focus of this, however, is on dreams and the position of time and work in the working class. There is little existing scholarship that I am aware of that takes the approach of situating the perspective of sleep cultures within mass visual culture.

The cultural effects of neoliberal capitalism in general have been researched by many prominent voices (Botanski, Freeman), and media theorist Mark Poster describes these as evidenced in reality TV in his essay 'Swan's Way: Care of self in the hyperreal', using extreme makeover shows as examples. In *The Quantified Self*, sociologist Deborah Lupton provides valuable analysis of Self-Quantification culture and its relationship to neoliberalism, and Alan Derickson situates the effects of the rationale of neoliberalism in the domain of sleep in his book *Dangerously Sleepy: Overworked Americans and the Cult of Manly Wakefulness*, in which he draws on examples of labor struggles in the history of the American working class. As far as I am aware, these approaches have not been applied to visual culture using a visual analysis of relevant media.

Disposition

In the first chapter, I will introduce and briefly describe the idea of capitalism's influence over time, as this forms the principal foundation of my research. In the second chapter, I will introduce my empirical materials and then present my two discourse analyses separately - *Shattered* first, and *Sleep Cycle* second. In my third chapter, I will tie together the important discourses of both materials, and situate them in relation to my theoretical framework, which centres around the self in neoliberalism. In my conclusion, I will re-focus on the position of sleep, problematising some of the sources and outcomes of my research, and discuss possible future research and alternative understandings.

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[31] *Sleep Cultures*, [website], http://www.sleepcultures.com/ (accessed 25 April 2018).

Chapter 1: Time, postmodernity and capitalism

In this chapter, I describe the historical and theoretical foundations of the thesis before any analysis of empirical materials. I outline the historical thinkers that makes reference to sleep as a subjective experience (Marx, Benjamin and Hegel), building on art history researcher Alexei Penzin's short introduction of these in 'Rex Exsomnis: Sleep and Subjectivity in Capitalist Modernity', presented in conjunction with the dOCUMENTA 13 exhibition in 2012.

Moving into more contemporary contexts, I build on three thinkers to outline the argument of how capitalism affects time and space, once again making reference to David Harvey's "time-space compression", as well as Jonathan Crary's polemic on capitalism and sleep, *24/7,* and Georges Gurvitch's analysis of different experiences of time in *The Spectrum of Social Time.* The position of the body in accelerated time is introduced based on Teresa Brennan's analysis of globalisation in *Globalisation and its Terrors.*

Time and Space

In his essay 'Rex Exsomnis: Sleep and Subjectivity in Capitalist Modernity', presented in conjunction with dOCUMENTA 13 in 2012, Alexei Penzin presents an archaeology of philosophical discourses on sleep and describes how currently "[t]he "natural" preconditions for sleep are being shifted, transformed, or even destroyed by the incessant functioning of our wired, globalised economy, 24/7 media, security checks".[32] Making reference to theorists such as Marx, Benjamin and Hegel, he asserts that the result of this is the "self-deprivation of sleep in order to find more time for work, consumption, pleasure".[33] In *24/7*, Jonathan Crary similarly traces the history of sleep in capitalism from the invention of electricity and the steam engine through to the use sleep deprivation in war and attempts to create the most efficient sleepless soldier.[34] As Penzin and Crary outline, sleep is a point of tension in modernity, playing a part in industries from healthcare to the military.

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[32] A. Penzin, 'Rex Exsomnis, Sleep and Subjectivity in Capitalist Modernity' in *The Book of Books*. Documenta & C Christov-Bakargiev (eds), Documenta, 13, Engl. Ausg., Ostfildern, Hatje Cantz, 2012. p.633.
[33] Ibid.
[34] Crary, '24/7', p.3.

Theorists of modernity and post-modernity such as David Harvey, Fredric Jameson and Georges Gurvitch have previously asserted the Marxist concept of the domination of space and time by capitalism, which Penzin also outlines.[35] Crary identifies how these changes redefine human experience and behaviour, and uses sleep as a lens to view the social and economic changes that come about with these shifts. As he explains it, sleep is the last remaining vestige of biological life to be fully mobilised for production, but it is also undergoing an assault brought about by the dissolving boundaries between night and day and work and non-work through the prevalence of 24-hour digital networks, increasingly precarious work and forms of surveillance. He calls this "24/7" time, and underlines that sleep is one of few reliefs - "an uncompromising interruption of the theft of time from us by capitalism".[36]

Building on Marx's theory of the "annihilation of time and space", Harvey refers to "time-space compression" to describe the way that time changes as a result of the influence of capital on time and space.[37] This is an idea further extended by Doreen Massey, Paul Virilio, Jon May and Nigel Thrift, and Teresa Brennan, to name a few.[38] Time-space compression initially develops as a crisis in the representation of time, which is itself a response to changes in space and distance coming from innovations like the telegraph, steamship and railways. If these changes have come about as a result of innovations affecting space and time, it's important to question how in techno-globalised capitalism, they are extended even further by the instantaneousness of information transfers across even larger spaces.

Crary makes reference to Teresa Brennan's idea of *bioderegulation*, in which the increased pace of time brought about by globalised capitalism is incompatible with biological factors such as ecology and the human body.[39] This is a point also reiterated by Harvey, who writes that the acceleration of economic processes, and consequently social life, is predestined to be "punctuated by periodic crises" as a result of "fixed investments (…) in organisational forms and labour skills" that aren't easily changed.[40] The fact that the "basic categories of human existence"

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[35] Penzin, 'Rex Exsomnis', p.634.
[36] Crary, '24/7', p.10.
[37] Harvey, 'The condition of postmodernity', p.147.
[38] D. Massey, *Space, place, and gender*. Minneapolis, University of Minnesota Press, 1994.
P. Virilio, *Speed and politics: an essay on dromology*, Foreign Agents Series, New York, NY, USA, Columbia University, 1986.
J. May & N. Thrift, 'TimeSpace: geographies of temporality', *Critical Geographies*, 13, London; New York, Routledge, 2001.
T. Brennan, *Globalization and its terrors: Daily life in the west*, London; New York, Routledge, 2003.

[39] Crary, '24/7', p.15.
[40] Harvey, 'The condition of postmodernity', p.230.

of space and time are treated as self-evident, or "common-sense" is, according to Harvey, part of ideology that works to hide the tangible psychological and social factors that create these understandings of space and time.[41]

Crary emphasises the banality of these changes in space and time - "a generalized inscription of human life into duration without breaks, defined by a principle of continuous functioning" - but also makes the point that it is not any specific operation or effect that is more influential to the process than the overall change in rhythm and intensified pace.[42] To borrow terms from media theory, this is an idea similar to John Ellis' idea of "segmentation" - that television media does not represent so much a "flow" (as suggested by Raymond Williams), but rather a series of sequential segments that accumulate into an intense stream of information.[43] Harvey describes time in postmodernity as "new", "fleeting" and "ephemeral", mirroring the flow of capital that moves in a stream of temporary segments.[44] Whilst these segments affect the way time is experienced and represented, they also, to come back to Rose, together constitute discourses through *intertextuality*.

Self

Crary's 24/7 time is "a time that no longer passes, beyond clock time" - that is to say, it operates outside the realms of "common-sense" chronological time as we understand it and time becomes less of the fixed entity that it is largely considered to be.[45] This idea of different co-existing temporalities is something theorised by sociologist Georges Gurvitch. Harvey describes how in *The Spectrum of Social Time*, Gurvitch describes the connection between space/time and the social world, proposing that time exists not as a unified concept but with "every social relation containing its own sense of time".[46] Space and time, according to Gurvitch, are inextricably linked to the social world, and one can not be understood without the other. Gurvitch describes the "great bureaucratic machinery" of organised capitalism as a driving force in the construction

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[41] Ibid., p.201.
[42] Crary, p.8.
[43] J. Ellis, *Visible fictions: cinema, television, video*. London; Boston, Routledge & Kegan Paul, 1982. p.112.
[44] Harvey, p.171.
[45] Crary, p.8.
[46] G. Gurvitch, *Spectrum of social time*, Paris, Springer, 1964, cited by D. Harvey, *The condition of postmodernity*, 1989, p.223.

of time, disregarding any concepts of the future and limiting at all costs the idea of losing time - something that relies on constant quantification by science and technology.[47] This kind of postmodernity is, according to Harvey, characterised by "depthlessness" and "reproduction" rather than "depth" and "original production" - repetition and fast turnover is key to limiting the loss of time.[48]

With the growth of neoliberalism, however, traditional organised capitalism is overtaken by the capitalism of individual flexibility, and a distancing of state control. This has ramifications for relations of selfhood, as I will discuss later. It is also relevant to question how, if capitalism is the organiser of time, new forms of capitalism that are increasingly sludgy, intangible, and yet even more all-encompassing, affect time.

Media

According to Harvey, the diminishing value of *money* as currency and capital reinforces time-space compression, and it is further upheld by the production and exchange of images and symbols. He suggests that changes in the representations of space and time that come about as a result of changes in their inherent meanings can have "material consequences for the ordering of daily life".[49] That is to say, changes trickle from shifts in time, to its representations, and eventually to the way daily life is structured and understood. Cultural artefacts such as media are both products of, as well as shaping forces within these shifts exactly because they are based on human experience. They "broker between Being and Becoming".[50]

Crary acknowledges media, and TV specifically, as a quiet form of social ordering.[51] Initially, television reflected the daily routine (and still does to some extent) - morning shows, traffic information, weather reports, lunchtime news, and eventually the watershed in the evening (the time of which is different across the world, and thus decided by cultural factors itself).[52] At the same time that time is loosely ordered by it, television also gathers "all the divergent spaces

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[47] G. Gurvitch, *Spectrum of social time.* Paris, Springer, 1964. p.142.
[48] Harvey, p.58.
[49] Ibid., p.204.
[50] Ibid., p.326.
[51] Crary, p.79.
[52] 'What is the watershed?', *Ofcom*, [website], 2016, https://www.ofcom.org.uk/tv-radio-and-on-demand/advice-for-consumers/television/what-is-the-watershed (accessed 26 April 2018).

of the world (…) as a collage of images", changing, and sometimes confusing, the experience of both chronological time and space.[53] Despite the fact that we might be 'doing the same things' by consuming media, the collective experience of space and time dissolves as forms of media become increasingly on-demand and instantaneous, and the effect is increasing individualism. This is something further extended by the advent of the shift in contemporary capitalism towards neoliberalism, which has the effect of individualising citizens.

Some of the claims I have outlined surrounding capitalism and time compression are (ironically) subject to change with changes in global and local economies, increasing globalisation, and the high pace of technological innovation - in short, they also change with time. I do not consider them infallible or unchangeable (for example, Gurvitch's writings on work and time in the 1960s would be vastly different to Crary's in 2013), but I have referenced the above thinkers to lay the foundation of my understanding of the vast effects that capitalism has on aspects of society that might traditionally be considered less subject to an economic model, such as time, space and the body. As I have mentioned, the increased pace of information exchange across vast space in techno-globalised capitalism adds tension to the existing changes in time and space brought about by traditional capitalism. Changes in new capitalist models then necessarily have effects on these. Using this idea and the thinkers I have mentioned as a point of departure, it is relevant to question what role visuality then plays in representations and experiences for citizens in these systems, especially where consumption and production and increasingly tied together and citizens become so-called 'prosumers'. Furthermore, the role of media and information technologies not only change concepts of time and space, but also offer citizens representations and different varieties of selfhood to be consumed and produced (such as online identities, personal brands etc.) in the form of intertextual discursive formations, or regimes of truth.

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[53] Harvey, p.302.

Chapter 2.1: Empirical Analysis

Human-machine assemblage/experience

As discussed in my introduction, many claims to the sleeplessness of late modern society explicitly place technology and the constant flow of information at their source - 24-hour television, constant connection of smartphones, endless notification.

Public and social spaces are so routinely populated by digital devices, screens, sensors, cameras and advertisements that it's almost impossible to avoid becoming subject to mass digitisation. Sociomaterialists, who focus on subject-object relations between humans and technology in everyday life, define the relationship that emerges in these settings under the concept of an "assemblage" - "when humans, nonhumans, practices, ideas and discourses come together in a complex system".[54] In this analysis, I will explore two case studies that are part of this constant information flow and human-machine "assemblages" - the first is *Shattered*, a 7-episode 2004 UK reality TV series, and the second, a sleep tracking app called *Sleep Cycle*.

The theorist Mark Poster outlines the significance of reality TV as part of a human-machine relationship, arguing that reality TV shows are "experiences with machines" that "further the construction of new configurations of human/information machine assemblages" because they represent both 'reality' and 'real people'.[55] Consequently, reality TV is a consumable media that is more interactive than many other types of broadcast media, and therefore can be more influential in affect to the viewers.

Self-Quantification constitutes another one of these "assemblages" through a specific relationship that relies on the inclusion of a device or software to 'know' the self. Used in this way, these devices can be considered extensions of the body, forming part of a combined assemblage of the body and the information machine. I will explain this in more detail in the next chapter.

In both examples, media content - whether it be data or footage - is simultaneously created and consumed by the user/viewer. In Reality TV, this is by the "real" contestants who take part as figures of 'normal people' akin to the audience watching (and sometimes by the

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[54] D. Lupton, *The quantified self: a sociology of self-tracking*. Cambridge, UK, Polity, 2016. p.40.
[55] M. Poster, 'Swan's Way: Care of Self in the Hyperreal' in R.Bishop (ed.), *Baudrillard Now: Current perspectives in Baudrillard studies*. Oxford, John Wiley and Sons Ltd, 2009. p.94.

audience who take part in 'voting' procedures, although this is not the case in *Shattered*). In Self-Quantification cultures, creation/consumption happens through the data that is created by the user who will later view it. In this way, the audience/user has a complex relationship to these media, rooted in their awareness that they reflect and depend on them, which makes them even more significant to explore as cultural artefacts.

The aim of the analyses of these two case studies is to create an overview of popular narratives that surround sleep and sleeplessness within mass culture through these two examples. The objective is to highlight relating political aspects that can be uncovered, building on theories and literature that I have previously mentioned.

Choice of sources

Shattered was produced during the peak in popularity of surveillance-style reality TV such as *Big Brother* and, aired at primetime on one of the most popular (and also publicly accessible) channels in the UK, its intended audience was a mass audience.[56] The sole intention of the program was for entertainment, with no outward focus on political aspects or aspirations for health or knowledge, as many sleep-related media often have. For these reasons, its content offers a view into representations that can reveal what aspects of sleep and sleeplessness would be interesting, entertaining or relatable to a mainstream audience at the time.

I chose *Sleep Cycle* for study because it has the highest ratings and most reviews for a sleep tracking app in both the App Store and Google Play store, with over 114,000 ratings alone on the two stores combined. Given that it is available on both platforms, it also has more user reach than other platform-specific sleep tracking apps.

Both examples offer different narratives of sleep - in *Shattered*, sleep is something to be eliminated, whilst in *Sleep Cycle*, it is to be improved or optimised as part of general health and well-being. To approach my analysis, I will outline discourses present in both materials, and then compare in which ways these are reflected across the two examples. I will first frame each

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[56] Throughout this paper, I use *Big Brother* (italicised format) when referring to the TV show, and 'Big Brother' (non-italicised, with quotations) to refer to the Orwellian concept of the totalitarian overseer.

example in context and then use a visual analysis to deconstruct important themes and identify discourses present at the sites of the images themselves.

Chapter 2.1: Shattered

Introduction

Shattered aired in the UK for one week in 2004 and was a spin-off of the well-known Big Brother series which was at the peak of its popularity in the mid-2000s. It was aired by Channel 4 and produced by Endemol, who also produced Big Brother. Channel 4 and Endemol were forerunners in bringing the reality TV genre to mass audiences in the UK, and Channel 4 is still today known for broadcasting controversial reality or 'factual' TV.[57] Currently, the program is not mentioned on Channel 4's website, but has been uploaded by a user to YouTube.[58]

The format of *Shattered* was similar to *Big Brother* in that contestants were placed inside a house together and surveilled 24 hours a day by static cameras and hidden camera-people - in *Shattered*, however, the challenge for the contestants was to stay awake for the total 8 days and 7 nights. If any contestant closed their eyes for more than 10 seconds at a time (whether asleep or not), £1,000 was deducted from the £100,000 grand prize, which only one of them could win. Contestants were purposely deprived of mental and physical stimulation in their environment, and given mundane repetitive tasks to perform as 'challenges'. Each day, their 'deterioration' was tested using 'scientific tests' (reaction tests, memory tests) and those who displayed the most deterioration were put forward for a challenge in which the loser was removed from the competition.

Whilst the competition in Big Brother was based around popularity and social relations within the house, with audience participation that allowed contestants to be voted out, *Shattered* did not allow for audience interaction and winning depended on the contestants' ability to perform certain tasks whilst sleep deprived, not actually just to stay awake. Contestants could choose to leave whenever they wanted to and could also be removed if Channel 4's team of doctors decided their health was at risk. Cultural theorist Mark Poster, building on Mark Andrejevic, makes note of the influence of "interactivity" (audience participation) in reality TV as "intensifying the surveillance of the participants".[59] This is something that transfers into

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[57] 'Factual Entertainment - Commissioning', *Channel 4*, [website], http://www.channel4.com/info/commissioning/4producers/factualentertainment (accessed 27 April 2018).
[58] 'XTX User Profile', *YouTube*, [website], https://www.youtube.com/user/MeesterWolf99/videos (accessed 27 April 2018).
[59] Poster, 'Swan's Way', p. 80.

Shattered, despite it being non-participatory, because it follows the format and conventions of Big Brother.

At its peak around 2004/2005, Big Brother was broadcast on Channel 4's subsidiary channels 24 hours a day, including when the contestants were sleeping at night. *Shattered*, meanwhile, was a version of Big Brother in which the spectacle never slowed while the contestants slept - this allowed for a 24-hour audience and further 24-hour surveillance of participants' bodies and minds.

At the time, the previous series of UK Big Brother (Big Brother 4) had been regarded as "the boring series" and had low viewer approval.[60] *Shattered* was presumably an attempt to build on Big Brother's reputation with some controversial changes that would engage new audiences.

Channel 4 and Endemol received 32 complaints regarding the ethical standards of the show, for which they were later cleared by Ofcom, the UK regulatory authority.[61] Although some complaints were received, they were presumably much fewer than expected (or perhaps wanted) by the producers given the dramatisation of the show (the same year, Ofcom received 150 complaints regarding a sausage advert that showed a dog jumping through a window).[62] The series drew only 1.8 million viewers - a drop of more than 2 million compared to the audience average of the previous *Big Brother* series.[63] None of the celebrity culture that was emerging from *Big Brother* around this time followed the end of *Shattered*. Currently, most references to the show are found in archives of 'weird' TV and game shows.[64]

Overall, *Shattered* was generally underwhelming and a disappointment to both viewers and broadcasters - a misjudgement of the fact that tired people are, in fact, very boring to watch. Maybe because it involves human subjects behaving at their most human, the hyperreality of the spectacle in *Shattered* overlapped too much with reality.

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[60] 'Big Brother: Your views', *BBC News*, 1 June 2003, http://news.bbc.co.uk/2/hi/entertainment/3051491.stm (accessed 27 April 2018).
'Double eviction for Big Brother', *BBC News*, 16 June 2003, http://news.bbc.co.uk/2/hi/entertainment/2994040.stm (accessed 27 April 2018).
[61] 'Ofcom clears C4's sleep deprivation show Shattered', *Campaign Live*, [website], https://www.campaignlive.co.uk/article/ofcom-clears-c4s-sleep-deprivation-show-shattered/205938 (accessed 27 April 2018).
[62] S. Brook. 'Ofcom clears "cruel" sausage advert', *The Guardian*, 2 August 2004, http://www.theguardian.com/media/2004/aug/02/advertising1 (accessed 27 April 2018).
[63] 'Channel 4 defends sleepless show', *BBC News*, 6 January 2004, http://news.bbc.co.uk/2/hi/entertainment/3373375.stm (accessed 27 April 2018).
[64] '*Shattered*', UKGameshows, [website], http://www.ukgameshows.com/ukgs/Shattered (accessed 27 April 2018).

Reality TV

In *The Intelligence of Evil*, Baudrillard states that in reality TV "everything is put on view and you realise there is no longer anything to see".[65] He rationalises reality TV's inherent banality as a consequence of the complete removal of privacy, secrecy and mystery, and therefore of anything of particular note.[66]

The commercial and cultural popularity of this banality, however, indicate more generally what media theorists Susan Murray and Laurie Ouellette refer to as "representational shifts and, with them, some opportunities that warrant special consideration", underlining the value in the analysis of representations in reality TV.[67]

In their assessment of reality TV, Murray and Ouellette consider its cultural significance as much more important and revealing than "the mind-numbing, deceitful, and simplistic genre that some critics claim it to be".[68] They argue that reality TV, exactly because of its instability and ambiguity, "supplies a multilayered viewing experience that hinges on culturally and politically complex notions of what is real, and what is not".[69] The viewer, in this case, is less passive and retains a level of independence to process and interpret the complexity of the images and representations that they view.

This claim of course raises the question of who controls representation and 'reality', which is approached with caution by Murray and Ouellette, and who emphasise the "ongoing cultural struggle between producers, participants, and television viewers".[70] Although unavoidably embroiled in this complication, reality TV has nonetheless "spawned an opportunity in which to wrest control of television images and discourses away from the culture industries".[71]

Mark Poster reiterates this point in his essay "Swan's Way: Care of Self in the Hyperreal", stating that reality TV "unlocks the question of the real at the same time that it attempts to close it. The genre thus opens for the audience the possibility of resistance to the broadcast".[72] These are contentious points to make, given the difficulty to separate producer influence from audience

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[65] R. Bishop and J. Phillips, 'Baudrillard and the Evil Genius' in R.Bishop (ed.), *Baudrillard Now: Current perspectives in Baudrillard studies*. Oxford, John Wiley and Sons Ltd, 2009. p. 30.
[66] Bishop and Phillips, 'Baudrillard and the Evil Genius', p. 31.
[67] S. Murray and L. Ouellette, *Reality TV: remaking television culture*. 2nd ed, New York, New York University Press, 2009. p. 12.
[68] Murray and Ouellette, p.8.
[69] Ibid.
[70] Murray and Ouellette, p.12.
[71] Ibid.

autonomy, but the fact that they surface puts reality TV in a unique position as compared to many other media.

In his essay "The Reality of Reality Television", cultural critic Mark Greif, compares reality TV to dramatic TV and describes the true unique 'reality' of reality TV as initially just *showing* viewers "our fellow citizens" and then, more notably, "that they have been changed by television".[73] This, according to Greif, is "the unacknowledged truth that drama cannot, and will not, show you".[74] In this way, reality TV makes light of the human-machine (and human-media) experience (as previously elaborated) more visibly than dramatic media, positioning itself as a form of assemblage.

Greif outlines the evolution of trends in genres in American reality TV as reflective of demographic and economic changes "not acknowledged elsewhere on television or in the official outlook of the media".[75] One such example given by Greif is the transition from a focus on "house-flipping" property development shows before the financial crisis in the US, to a focus later on shows such as *Storage Wars* in which participants bid on belongings abandoned or left behind in storage units. For Greif, this is directly reflective of the reality of the economic changes from prosperity to a housing crash and crises in personal debt also affecting the viewers of these shows.

Spread across time, Greif then contends, reality TV becomes more 'real' than its critics would care to admit, and "would be our tea leaves or rabbit entrails for the next shock, if we knew how to read them".[76] Similarly to Murray and Ouellette, he uses these examples to argue for the cultural significance of reality TV as representative of cultural/political shifts and complex notions of reality, crediting it with a kind of fortune-telling. With reality TV anchored so much more deeply in the time of its production than dramatic TV, it is particularly pertinent to reveal the discourse or themes of a particular moment or cultural shift.

Building on Murray and Ouellette, Poster and Greif's perspectives on reality TV as a valuable and reflective source, I understand *Shattered*'s cultural significance as part of a constitution of new human-machine "assemblages" (as outlined previously) reflective of "representational shifts" in the portrayal of the 'everyday citizen', and the political-cultural

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[72] Poster, *Swan's way*, p. 81.
[73] M. Greif, '*Against Everything*'. New York, Pantheon Books, 2016. p.190.
[74] Greif, Against Everything, p.190.
[75] Greif, p.192.
[76] Greif, p.193.

contexts that affect them. I will specifically use these perspectives as a basis to navigate discourses around sleep and sleeplessness that are present in reality TV.

Analysis

To approach my analysis of *Shattered*, I use a discourse analysis focusing on the site of the image itself and its representation. I identify 4 central discourses and some other themes that are present or develop throughout the 7 episodes of the series.

All of the discourses in *Shattered* operate within a careful balance between entertainment and reality, and this will be my first point of focus. Although these are not diametrically opposed, they exist here on a spectrum, which the narrative of the show balances. This is a complex negotiation - originally described by Baudrillard in *Impossible Exchange* and elaborated by Poster - by which media simulates the real and "play with their double status as simulation and as reality".[77]

1. Reality

1.a Pseudo-science

The narrative of the program often alludes to an "experiment", a "lab", "symptoms" and "scientific tests". References to a "controlled environment" with "experts" on hand, and excerpts of pre-production sleep deprivation tests aired in the opening episode dramatise the program by reiterating that it is serious enough to warrant expert controls, but also validates the audience's participation in watching the show. (Fig.1 – see Appendix for all images) Viewers are outwardly reassured that whilst the program is portrayed as extreme, it is for 'science'. Underlying all of this is the understanding that it is ultimately all for entertainment.

In the opening episode of the series, *Shattered's* presenter, Dermot O'Leary (who at that point already had ties with the UK *Big Brother* series) explains the concept of the show from

outside the building. After a short video introduction about the dangers of sleep deprivation, disasters that are said to have been the result of it, and previous experiments on it, with "experts" stressing the necessity of sleep, the camera cuts back to Dermot standing outside. Symptoms of sleep deprivation are projected onto a large screen behind him - "Irritability", "Increased libido", "Memory loss"; "Incoherent speech"; "paranoia" - giving the audience knowledge that changes their position from watching a TV show to observing an experiment. (Fig.2) Once inside the building, O'Leary takes the viewer on a tour of the "The Lab" - the set/house that the contestants will be living in. Wearing a white lab coat and glasses, O'Leary explains that all furniture edges have been rounded to prevent injury and that contestants are provided with plastic cutlery and pre-prepared food in order to prevent kitchen accidents. (Fig.3) The series is framed as a real scientific experiment, building on the idea that reality TV is 'real', whilst maintaining the narrative of entertainment.

From the second episode onwards, a 'sleep expert' and psychiatrist are present for the studio shows, in which they give an earnest, scientific summary of their analysis of the day's events, and sometimes of their interactions with the contestants in daily medical check-ups. Contestants' emotions and reactions are described using exaggerated medical terms - "hysteria", "depression", "depersonalisation", "derealisation", "euphoria", "circadian rhythms". In one example described by 'experts' in the studio in the third episode, the contestants have a short water fight in a moment of boredom when being forced to listen to a shipping forecast on the radio. This is hyperbolized as "hysteria" and "a regression to toddlerhood" by the 'experts', transferring the emphasis from the entertainment of viewing the extra-ordinary to witnessing a scientific observation.

In short, this pseudo-scientific discourse is represented both in language and visually, and consistently puts viewers in a position in which they are 'savvy' - the show adopts the language and references of expert knowledge, and viewers understand these. The show's 'experts' and health and safety procedures, and the scientific frame of knowledge that they inhabit, are part of a greater *regime of truth* outside the house and represent "a visible component of a dispersed network of supporting technologies geared to self-help and self-actualization" (which *Sleep Cycle* is also a part of).[78]

The tone, however, is ambiguous, as evidenced in the blurring of the entertaining aspects of the show. Science is used as a premise to structure the narrative of the spectacle, but viewers

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[77] Poster, p. 81.

understand that the program does not aim to produce scientific knowledge, and remains centered around entertainment.

1.b Scientific severity vs entertainment spectacle

The negotiation of entertainment and reality is personified by Dermot O'Leary, who mediates and translates the relationship between 'Big Brother's experiment and the entertainment of the audience. As a character, he is friendly and personable - he uses puns and plays on words and chats with contestants in an earnest way. In the first episode, we see him taking the challenge to stay awake for 50 hours to experience for himself how the contestants will feel. This is filmed in his own home as a video diary, where he wears comfortable clothing and his glasses – an informal, more intimate version of the presenter Dermot. (Fig.4)

In the opening episode, he explains that during the 'experiment', he will stay in a small room next door to 'The Lab', taking the viewer on a tour of it - it is basic, with a shower, a bed with camouflage bedding and matching camouflage curtains, a small number of basic toiletries and a dartboard - signalling the generic uncomplicated and comfortable masculine bedroom. (Fig.5) We rarely see any more mention of this room after the first episode, but it begins the series by situating O'Leary's role and personality throughout - literally the 'boy next door', and only a distanced representative of the 'Big Brother' complex, as he too will suffer a little in solidarity with the contestants.

In the second episode, O'Leary announces a new task in front of the studio audience in which contestants make their way through a series of doors, some with unmarked handles that lightly electrocute them. He explains the task with a smirk and tongue-in-cheek comment " - don't tut". This emphasises that while the task and the program is all for entertainment, it is also very real - the electrocution is an integral part of the test, and controlled by health and safety professionals, but O'Leary's tone allows the viewer to understand that it's also for entertainment, and that they are in on the joke – this is entertainment masked as severity, verging on the slapstick. The explicit driving force behind the tasks is the authoritarian entity of the 'Big Brother' surveillance panopticon and its scientific 'experiment', but small nods to the audience occasionally remind that they are, in fact, the real driving force behind *Shattered*. Throughout the initial presentation of the house and the 'experiment' in the first episode, O'Leary behaves

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[78] L. Ouellette and J. Hay, 'Better living through reality TV: television and post-welfare citizenship', Malden, MA, Blackwell Pub, 2008. p.3.

whimsically overly serious, tapping on a clipboard and walking stiffly, alleviating the serious tone and letting the viewer in on the joke that although the experiment is serious, it is also entertaining. Here, he negotiates the entertainment of the spectacle in the frame of the scientific experiment.

O'Leary's ambiguous role caught between friend and enforcer is also reflected in the difference between daytime and night-time in the program. During the day, he occasionally spends time in the house, popping by for breakfast, or playing games with the contestants (which give them a chance to win back £1,000 lost to an 'illegal sleep'). He speaks to them about how they feel in a gentle, earnest way, and mediates conflicts. In these moments, he wears glasses and casual clothing that add a personal touch. These 'win back' challenges are not presented as serious, high-stakes situations, but shown briefly in a summary of the day's activities in the evening shows - a reminder that Dermot is a representative, but not the main entity (such as 'Big Brother', the experiment or sleep itself) to be beaten. In the evening shows, O'Leary wears black shirts and removes his glasses - once again a warden of the 'Big Brother' panopticon and representative of the depersonalised force that controls the house. (Fig. 6) The viewer understands that in his role as the representative of the 'experiment', Dermot is just doing his job; in reality, he cares about the contestants and their well-being. This puts the audience at ease, and once again points to the program as entertainment. The unspoken comfort for the viewer is in knowing that the contestants - the viewer's "nitwitted fellow citizens", to borrow a term from Greif - only suffer as much as they deserve to, having given themselves up to take part in the show.[79]

These negotiations between entertainment and reality exemplify what Murray and Ouellette mean when they describe reality TV as a space in which viewers "test out their own notions of the real, the ordinary, and the intimate".[80] Viewers are put in the position of dissecting how to decipher the representation presented to them, with small hints in the production to guide them.

This balance between scientific severity and a playful tone of entertainment is something that is also present in the *Sleep Cycle* app, as outlined in the next chapter.

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[79] Greif, p.183.
[80] Murray and Ouellette, p.8.

2. Individualism

2.a Individuality

Ouellette and Hay describe reality TV's "capacity to 'advance' or 'reinvent' democracy" by its "invention of procedures for participation".[81] The constant arbitration of individual and group dynamics throughout *Shattered*, common to many participatory reality TV shows set within a group, is reflective of this.

References to Britain and 'the nation' throughout the series contextualise the *Shattered* house as a microcosm external to, but ultimately within, the wider realm of Britain. The show is often introduced within the context of the nation - "*Britain's* toughest endurance competition", and falling asleep is referred to as 'illegal sleeping' (which one of the contestants, Claire M, mocks at one point, saying "when you commit a crime in the real world you get a judge and jury"). Chris, the contestant representative of youthful enthusiasm, describes how he intends to win the prize money and "the respect of the entire nation", and in one of the last episodes, Clare S is asked how it feels to be the representative of the women of Britain when she becomes the last remaining woman in the competition. In these cases, 'Britain' is an inherently positive, community-forming force. Here, the audience is included as part of the final prize for the winners, and this is flattering to them. Despite the fact the contestants don't endure the competition at the hands of a totalitarian *Big Brother*, but at the hands of the audience, the *Big Brother* universe is still constructed as an 'other' to Britain, and the contestants overcome it for the sake of their internal community in the house, and the external community of the audience and their selves outside the house. The juxtaposition of these two worlds is central to the formation of a micro-society within the house.

Each of the contestants represents an archetype of sleep deprived citizens in 2004 British society - the night worker (Dean), the mother of two (Clare M), the determined police officer (Clare S), the student who parties all night (Lucy), the meditative ex-army boy with a soft exterior but hard interior (Jimmy), the brainy psychologist who will use science to 'hack' his body (Jonathan), the young 'boys' boy' who will run on youthful exuberance (Chris). As the one without any type of 'special power', Chris becomes the reflection of the 'average person' and receives special sympathy, evidenced when he physically suffers the most from sleep deprivation but still makes it to the final.

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[81] Ouellette and Hay, 'Better living through reality TV', p.206.

The contestants and guests who are or have been part of the military or police force are described with this detail throughout the series to emphasise their hardiness - "the ex-army boy with a sniper stare"; "trainee police officer"; "the terminator". In the opening montage of the first episode, Ken Hames, a guest introduced only as "ex-Special Forces" (who also later runs a challenge for the contestants) describes experiencing sleep deprivation and hallucinating that he could see a cold beer - emphasising that even the most stereotypically masculine and stoic military man can be affected by sleep deprivation, further underlining its severity. (Fig.7) This emphasis on backgrounds as state actors play on stereotypes to suggest that some contestants have an advantage over others and are predisposed to be strong, able and resilient, creating difference between the individual contestants and within the hierarchy of contestants and guests.

Ouellette and Hay describe the reality TV show *Survivor* as fundamentally about "testing/contesting the limits of democratic comity in an environment where difference increasingly matters", and this is something that is also apparent in *Shattered*, despite there being no voting process involved for participants or viewers.[82] Initially presented as diverse individuals, the contestants are defined by their occupation and their difference, which is then loosely connected to sleep deprivation. This creates a microcosm of 'real' life which the viewer can relate to their own experience and the narratives that they have learned about these archetypes. As Greif notes, comparing reality TV to festivals which were once the only meeting point of diverse populations, "this was our festival" – a melting pot of a population's archetypes.[83]

2.b Femininity/Masculinity

Throughout the series, the emphasis of difference is most explicit in narratives around femininity and masculinity. Contestants are described as "man enough" to win tasks whilst the studio 'experts' say that "a quiet confident woman could win", introducing the possibility of an 'unexpected winner', and explaining that women are often better adapted to sleeplessness due to the demands of childcare.

The fact that the final winner, Clare S, was a woman is stressed several times when she is asked by fellow contestants how it feels "to represent British women". She is initially somewhat resistant to this, but towards the end of the series is shown saying she's "doing it for the girlies". The studio 'experts' at one point compare Clare S to Margaret Thatcher - not because Thatcher

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[82] Ouellette and Hay, p.186.
[83] Greif, p.185.

famously bragged about sleeping for only 4 hours each night, but because Clare S embodies Thatcher's 'iron lady' image. Both inside and outside the house, she is described as "not like the other girls", a "robot" and "the terminator". In this role, her femininity is diminished using masculine metaphors to remain consistent with the narrative of what Alan Derickson calls "manly wakefulness".[84] When asked how she will spend the prize money in the final episode, Clare S says she will spend it on her family or "something sensible", further personifying the image of the unfrivolous woman who remains masculine enough in her stoicism to be a worthy winner, but still feminine enough to be a family-centered caregiver. Here, she peaks in her self-actualisation as the good contestant-citizen.

2.c Group

It is emphasised from the beginning of the series that *Shattered* is the first time a sleep deprivation experiment has been done on a group, making it previously unexplored territory, and throughout most of the series the contestants are described more as a single unit, working and struggling together. This paints the house as a microcosm of democratic practice. By the end, the narrative has shifted back to individuality, and in the last two episodes the experts comment on how much the group has disintegrated into separate individuals as the competition becomes more fierce. Difference is emphasised, whilst - to borrow the phrase from Ouellette and Hay - "democratic comity" becomes strained.[85] This is stressed by the experts, who play into their roles as behavioural analysts, or observational anthropologists.

Group work is celebrated as for the good of all - if any one of the contestants falls asleep, money is lost from the prize fund, so they help to keep each other awake. This is stressed in the opening moments of the show and throughout the rest of the series. Contestants talk about this as if it's a way for them all to reach a common goal and they apologise to each other when money is lost from the prize fund. However, the underlying acceptance is that in the end, the best (wo)man must win - here, achievement is ultimately an individual endeavour. Although they are in competition against one another, the group works together in a display of sportsmanship that is also constitutive of a good and worthy citizen, even in defeat. The 'experiment' is painted as a test of group governance, but in the end the winner will always be

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[84] Derickson, '*Dangerously sleepy'*. p.1.
[85] Ouellette and Hay, p.186.

"the most self-actualised citizen player", as Ouellette and Hay put it.[86] The exercise in group governance, however, ultimately rests on the differentiation of those who are in and those who are out, and which of them is equipped to represent the model contestant-citizen.

As Rose suggests, in discourse analysis, focusing on contradictions is revealing, and the group/individual paradox is one that repeats throughout *Shattered*. The idea of clumsily negotiating how to get ahead in a group environment where group work is venerated and necessary, all the while working towards a very individual goal, is a relatable theme from beyond the walls of the house, enabling the viewer to see themselves in this narrative. The negotiation of this contradiction is constitutive of good citizenship - of evaluating the limits of human capacity, at the same time as the will to behave in accordance with the expectations of being a responsible free citizen.

Shattered's contestants assert themselves as responsible individuals amongst their group not only for the sake of competition, but to prove themselves, in front of 'the nation', as self-actualised citizens literate in the neoliberal principle of self-government.

The narratives of individualism, group dynamics and individual difference correlate with Derickson's description of the twenty-first century "cult of adaptability".[87] In this regime, "flexibility has become a mantra", founded in the logic of the business community that celebrates the free market and a distanced government.[88]

3. Fear/Control

As described by Ouellette and Hay, Reality TV shows that focus on the individual capacity to endure stress and discomfort have fear and insecurity as central concepts from which to build their narrative, and these reappear throughout *Shattered*.[89]

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[86] Ibid., p.187.
[87] Derickson, p.142.
[88] Ibid.
[89] Ouellette and Hay, p.156.

3.a Endurance/body

In the first moments of the opening episode, the show is introduced as "Britain's toughest endurance competition" with the winner crowned "Britain's ultimate endurance champion". Endurance is a concept that reappears throughout the series.

Falling asleep is framed as a surrender to the will of the body, or a lapse in personal endurance. One contestant, Chris, explicitly says "there's tiredness and there's…body taking over" to describe an extreme tiredness that feels involuntary. The body here is both the weakness and the force to overcome - fighting against the biological, human side of it with physical and mental capacity is almost heroic. The studio experts allude to this when they describe Jimmy's remarkable "ability to fight off tiredness". The idea that the body can be overcome relies on the separation of the body and mind, and ideas of physical and mental endurance, which are emphasised throughout.

The endurance narrative is muddied in the reality of the competition structure - the contestants could in theory fall asleep as many times as they want to and wouldn't be disqualified. What the competition is actually based on is performing well on daily reaction tests that supposedly track their 'deterioration', and in challenges that they are given - presumably because there are few ways to measure wakefulness whilst remaining entertaining. In a lapse from the narrative of the drama, a contestant named Ellen shortly after being eliminated remarks that she should have purposely performed worse on the daily test the day before so that she would have appeared to deteriorate less the following day and wouldn't be chosen for the elimination challenge. Since the competition does not actually depend on staying awake, this is something that's just rewarded as part of the endurance narrative - "risk-taking", as Ouellette and Hay note, "has become a rewarded dimension of performing various tasks on TV".[90]

Endurance is an integral part of the entertainment narrative of *Shattered*; where the pseudo-severity and violence described earlier, verging almost on slapstick, are also found. This is clear when the tasks the contestants take part in become increasingly tongue-in-cheek - a grandmother reads Chris a bedtime story; Jonathan watches paint dry; Jimmy counts sheep on a TV monitor.

By the last episode, references to "endurance" are softer and more reflective, replaced by phrases such as "extraordinary journey" and "the weirdest show on television" - this progression

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[90] Ibid., p.155.

reflects the change in tone as the contestants are fewer and the show comes to an end, becoming less sensationalised and more contemplative. The repeated conjuring of 'endurance' makes reference to the world in which 'Big Brother' is the overseeing force, where the contestants are electrocuted and challenged to stay awake whilst listening to the shipping forecast (a notoriously unstimulating exercise). The "journey", meanwhile, is the other reality of the program, in which the contestants become self-actualised, expose their most private moments, and reveal to the viewer how television has changed them. These form part of the balance between reality and entertainment, which the audience navigates as a process of testing their own self-actualisation.

3.b Military

As previously mentioned, contestants are noted for their military and police force backgrounds, contextualising them as part of wider society and building on stereotypes around both personal and collective strength and control.

Ken Hames, who appears in the initial montage about sleep deprivation described only as "ex-special forces" (according to his website, he is currently a motivational speaker and TV presenter), later reappears as a guest on the show and is tasked with putting the contestants through gruelling physical and mental tasks.[91] These involve making contestants peel potatoes and then putting them in stress positions blindfolded, reminiscent of military torture techniques which often also include sleep deprivation. (Fig.8) It is relevant to note that only months before *Shattered* aired, the UK military under Tony Blair was part of the invading forces of the widely considered to be illegal 2003 Iraq war, which would come to be a period notorious for systemic prisoner abuse and torture by invading forces, mostly revealed following the inquiry into the death of Baha Mousa in September 2003 - 4 months before *Shattered* aired.[92]

Theatrical references to the military in *Shattered*'s narrative and Hames' position as kind of pantomime villain in this climate suggest a certain lack of self-awareness, but also evidence the distance between conceptions of Hames' totalitarian 'Big Brother' universe, and the audience's 'reality' in Britain. If we were to read this as a foreboding signal of reality, as Greif might suggest, it could suggest a normalisation of representations of military intervention at a time where this

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[91] 'Ken Hames - TV presenter Speaker ex SAS soldier', *Ken Hames*, [website], https://www.kenhames.co.uk/ken-hames (accessed 6 May 2018).
[92] 'Army abuse of Iraqi "appalling" ', *BBC News*, 8 September 2011, http://www.bbc.com/news/uk-14825889 (accessed 6 May 2018).

was a contentious issue for the New Labour government. Hames is on the one hand the villain of the show, but in reality fits into the archetype of the national hero, sitting above the contestants as the true sleep deprivation and endurance hero, suffering for the sake of the nation, and, in the ultimate show of 'manly wakefulness', experiencing only the longing for a cold beer.

4. Surveillance

From the beginning, *Shattered* builds on the visual style and narrative of *Big Brother*. The program's opening credits reference the *Big Brother* 'eye' design - itself a reference to the 24-hour surveillance by 'Big Brother' in George Orwell's *1984*, where *Big Brother* gets its name. The eyes in *Shattered*'s opening credits, however, no longer represent the machinic gaze of an all-seeing techno-eye, but tired, bloodshot human eyes. (Fig.9)

The holder of the eye moves from the abstract force of the panoptic Big Brother surveiller to the tired human eye of the contestant - making reference to the human, physical aspects of the competition, but also reflective of the fact that the contestants are the ones watching themselves and each other in order to stay awake and preserve the full final prize fund. This is self-surveillance that is enacted partly as a responsibility towards the group, and partly to maintain one's endurance of the task, and therefore ability to succeed. "The care of the self through TV", Ouellette and Hay note, "increasingly involves spying on oneself".[93]

Each episode begins and ends with a view of the building from above - the view of the all-powerful overseer - always at night, and brightly lit against the backdrop of a dark east London; like a 24-hour spectacle or floodlit prison, underlining the nature of the 24-hour totalitarian surveillance in the space. (Fig.10) Whilst 'Big Brother' is the panoptic overseer of the contestants, in this view, the audience becomes the panoptic overseer of the whole house.

Surveillance is enacted at various levels throughout *Shattered*, some more explicit than others, creating a complex construction of watching and being watched. Surveillance in some cases is presented as a disciplinary, totalitarian force, whilst in others, it is a fruitful part of self-regulation - "productive of a certain regime of safety and security in the current security

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E. MacAskill, 'Iraq war was illegal and breached UN charter, says Annan', *The Guardian*, 16 September 2004, http://www.theguardian.com/world/2004/sep/16/iraq.iraq (accessed 5 May 2018).
[93] Ouellette and Hay, p.153.

society".[94] The tendency to enact and represent surveillance in reality TV is something that Mark Poster describes as how "the shows "mitigate" the audience's resistance to such monitoring".[95] This is something that is similarly present in the use of personal technological devices for self-tracking.

Summary

Sleeplessness has become a repeated theme in wider society, to be at once glorified and rehabilitated, but upon deeper analysis becomes less central to the narrative of *Shattered* than initially suggested. The construction of confusions and contradictions in reality/entertainment, group/individual, freedom/control and surveillance/self-surveillance serve to portray contestants as fellow citizens weighing up their actions in a process of self-actualisation - part of the "representational shift" described by Murray and Ouellette. Meanwhile, these also position the viewers as self-actualising citizens, capable of deciphering reality from fiction, and successfully understanding reflections of societal and behavioural norms outside the house, placing "the programs' learning and preparation sessions at different degrees of distance".[96]

As 'real' people, contestants are not characters found in traditional dramatic television, but are open to judgment from an audience who watch and measure - even despite the general tendency to rebuff their televised fellow citizen, who has willingly relinquished their right to private individuality in their most private moments, as stupid, shallow or narcissistic.

The presentation of sleep throughout *Shattered* as something to be beaten or overcome is at once for the entertainment value of the extra-ordinary, but also consistent with the idea of endurance and the construction of a hero/winner that characterises Korean-German philosopher Byung-Chul Han's "achievement-society", in which the veneration of self-control and self-improvement are ubiquitous (which I will elaborate on later). Sleep is a human hindrance, which the determined can overcome, but the viewer and the show both recognise that this is extreme, and *Shattered* makes a point to highlight examples of the average (Chris) and the

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[94] Ibid.
[95] Poster, p.81.
[96] Ouellette and Hay, p.154.

extraordinary (Clare S). As Greif notes, "We need myths, not only of our ideal, and our average, but of our fallen extreme".[97]

Despite the emphasis on how extreme *Shattered*'s conditions are, the virtuous motivations of self-improvement, suffering to achieve and 'hacking' the body to overcome its limitations are relatable to a mass audience in the context of a western late capitalist society rooted in achievement, individuality and possibility. The narrative inside the house consistently presents a higher meaning to winning the game, such as self-improvement, as positive and necessary, tapping into the understandings of the audience held outside the house.

Viewing *Shattered* as our tea leaves, as Greif suggests, we can attempt to unpick the threads that underpin its pertinence - the body as spectacle; the body as tool, sleep as weakness or mechanical function; achievement as life; the complex positions of discipline, achievement surveillance. Were *Big Brother* and *Shattered* a prediction of self-surveillance that would increase with the advent of smartphones, built on the idea of escaping the disciplinary sovereign, and using the 'freedom' afforded by both technology and the achievement-society?

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[97] Greif, p.180.

Chapter 2.2: Sleep Cycle

Sleep Cycle Alarm Clock is the most popular app in the category of sleep tracking apps in both the Google Play and Apple App Stores, which are part of what is sometimes named the "quantified self" movement. With almost 10 years since the 2.0 version was released in 2009, *Sleep Cycle* has proved to be consistently relevant to mass culture, undeterred by the fast-paced change in the world of smartphone apps and enabled by the flexibility of mobile apps to be constantly updated. Many users on review sites profess their loyalty to the app, which they have used for many years.

Quantified Self

Data is increasingly used as a form of knowledge, production, and consumption, as outlined by Nigel Thrift. 'Knowing capitalism', as he calls it in the book of the same name, is a new economical structure centred around the knowledge amassed by technologies working with data, often known as "big data".[98] This extends to the most personal facets of life and with the increasing capabilities of smartphones, self-quantification apps have entered the mainstream app market.

Deborah Lupton emphasises the multi-faceted complexity of these self-tracking cultures, but outlines how bodily self-tracking itself is not a new phenomenon and has existed by both digital and non-digital means (an old pair of jeans to measure waist size or lines drawn on a door frame to measure height are examples) since before the widespread increase in digital technologies.[99] It is also not a phenomenon exclusively reserved for the self, with caregivers often using quantification to track the health and development of those they care for.[100] In 2007, two writers for Wired Magazine coined the term "Quantified Self" to describe the phenomenon of specifically-tech based bodily tracking.[101] According to them, the Quantified Self movement

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[98] N. Thrift, *Knowing capitalism*. London, SAGE Publications, 2005.
[99] Lupton, The Quantified Self, p.63.
[100] Lupton, p.64.
[101] 'QS & The Macroscope', *Antephase*, [web blog], http://antephase.com/themacroscope (accessed 6 May 2018).

focuses on "self-knowledge through numbers".[102] They often refer to 'self-experimentation', signalling the objective of extracting meaningful information to then build upon as a means towards self-improvement.[103] These practices represent what Professor of English at City University of New York, Jill Belli refers to as "technological utopianism", a "belief in the value of greater self-knowledge and progress through technology".[104] Self-tracking tools, particularly apps, are often "gamified", making the experience of health improvements more entertaining and captivating, but sleep tracking apps, however, do not seem to share this - presumably, there is a limit to the extent that an activity that is by nature inactive such as sleep can be gamified. The *Sleep Cycle* app does, however, still explain that "Calmer and longer sleep gives a better score" - the "score" implying that it is a game or challenge the user plays with/against their body, but this is presented as almost a form of mysticism, rooted in 'progress' and 'self'. (Fig.11)

For most, digital devices form part of the furniture of everyday life, threaded into routines, social relations, access to knowledge, experiences of self and of embodiment.[105] The intersection between the two necessarily requires embodied experiences and in this convergence, both objects and human users are reshaped - objects come to represent the personal meaning and affective dimensions experienced throughout their use, and users tie new meaning to them as a result. As Lupton notes, technologies come to "bear the marks of our bodies as we touch and handle them".[106] This relationship is particularly amplified when using self-tracking software, which by definition exist to utilise and generate deeply personal information, and as a consequence affect users' self-image and identity - "the body and the data it represents become central concepts of identity".[107] The complexity of this relationship can be both positive and negative and can have significant effects on the user, as evidenced in the emergence of orthosomnia, the disorder caused by self-diagnosis of sleep problems based on sleep-tracking data that is described in my introduction.

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[102] 'About the Quantified Self', *Quantified Self*, [website], 2010, http://quantifiedself.com/about/ (accessed 6 May 2018).
[103] Lupton, p.32.
[104] J. Belli, 'Unhappy? There's an App for That', *Digital Culture & Society*, 2, 2016, p.91, http://www.degruyter.com/view/j/dcs.2016.2.issue-1/dcs-2016-0107/dcs-2016-0107.xml (accessed 6 May 2018).
[105] Lupton, p.31.
[106] Ibid., p.41.
[107] Ibid., p.54.

Analysis

1. Reality

Similarly to the 'double status' of reality and entertainment in *Shattered, Sleep Cycle*'s branding reflects its ambiguous position caught between them, toeing the line between being both entertaining and real enough for the user.

1.a Pseudo-science

Much of the 'reality' that upholds the app's value relies on the mobilisation of (pseudo-)scientific imagery - a regime of truth understood by the user. The word "reboot" (purposely formatted in quotes) is frequently used to signal the benefits of the app's functionality - the body should be treated as a machine, computer, or series of numbers - and it can be by using machines. (Fig.12) This metaphor of "body as machine", according to Lupton, "has a long history in western culture" and forms part of the post-enlightenment discursive formation of the body.[108] It is implicit that the user's self-knowledge is lacking, and that this will be created through science and technology - as the Quantified Self movement proclaim, "self-knowledge through numbers".

In explanations of the app's functionality, the "sensitive accelerometer" is cited as the site of origin of the data, with emphasis on "sensitive" - the accelerometer represents science, and its sensitivity makes it infallible. (Fig.13)

On the 'Statistics' page, collected data is represented using scientific-looking waveforms that resemble a stylised version of a hypnogram, a type of graph used in polysomnography. (Fig.14) Here, peaks represent wakefulness and activity while dips represent deep sleep and stillness, with the full length of the line offering a visual representation of the commonly recognised human feeling of drifting smoothly up and down, and in and out of sleep. The smooth line is coloured as a gradient with bright, vibrant blue for wakeful periods, and a softer, deeper blue the deeper the sleep gets. It's never clear what the perfect waveform should be, or exactly what the waveform measures or how, and the basis of the measurements is also only vaguely explained - any interpretation of the sensor data collected from the phone on movement or audio is just guesswork. What the pseudo-empirical waveforms do supposedly offer is proof that a person is present, like an x-ray offers proof of a skeleton or an ultrasound offers proof of

a fetus, and represent the body as "a site of information, made up of data flows and circulations".[109]

The visual language of science and medicine in these cases works to create a discursive formation based on an acknowledged regime of truth - the reality and knowledge of the app, relying on the medico-scientific *episteme* that is widely understood in mass media and culture to represent truth and objectivity. As Lupton notes on the visual language of self-quantification in general, "Unlike the allegedly subjective information that people receive from their sense and through observations, digital data carry with them an aura of scientific authority".[110]

The pseudo-medical narrative is, however, a complex representation that is not consistent across all parts of *Sleep Cycle* as a result of the reality-simulation paradox, which I will come back to later.

1.b Nature

In its branding, the app is frequently described as "the natural way to wake up" - where 'naturalness' is implicitly good - and waking up in this way makes you "feel rested and relaxed" - implying an outside intervention that causes the user to feel a certain way. (Fig.11)

The list of options for alarm sounds and "sleep aids" (sounds to listen to when falling asleep) are named after a series of pleasant, evocative settings in nature - which is once again, implicitly good - often associated with wellness and thoughtfulness - "Warm breeze", "Forest glade", "Morning mist", "Autumn leaves", "Babbling brook", "Medium wind", "Countryside ambience", "Ocean waves", "Sunrise", "Distant memories", "Nightingale", "Summerfield", "Dreaming near the Sea", "December moon" (the standout being "random alarm sound" - for those users who wish to wake up with more severity). (Fig.15) These represent the antithesis of the reality of the modern urban life in which the *Sleep Cycle* developers would hope to find much of their busy, sleepless user base.

Across all views, the background of the app is idealised night-time - a blue/dark blue gradient dappled with light flares representing stars, some close and some far - the 'Starry Night' of the mainstream branded app aesthetic. Blacks and greys barely exist, and night-time glows invitingly; a night-time that the app can capture. (Fig.16) The romantic appeal of idealised night-

[108] Ibid., p.53.
[109] Ibid., p.54.
[110] Ibid., p.56.

time collides with its invasion by productivity, and the key to accessing it is to follow the prompts overlaid in clean white text - simple, minimal, but still friendly and personal. When the alarm goes off, stylised night is replaced by a vibrant blue sky and powerful, glowing sun; the kind of day you want to get up for. (Fig.17)

The language of nature is used to reference the implicit connotations of nature in mass media as peaceful, restorative, and a return to the root of what it is to be human - for this reason, it can be trusted. With "bioderegulation" (outlined in Chapter 1), Brennan contends that time-space compression and the constraints of biology are incompatible, but *Sleep Cycle* acts as a bridge between the two, signalling that they can be balanced with the help of a technological fix.

1.c Tone

Although the tone of the app is generally serious, some smaller details reflect the corporate-friendly branding style of the development company. "We all know that feeling" when describing the feeling of waking up feeling unrested suggests both that the app understands the user and this basic human fallacy (that must be fixed), but also that even the app and its developers are human enough to bond over this collective annoyance with each individual user. (Fig.13)

In the Settings screen, the icon for snooze settings is a hammer - a whimsical detail, again alluding to the collective annoyance of the snooze function, over which we can all groan but ultimately laugh. (Fig.18) Here, sleep remains somewhat comical, in the realm of cartoonishness, and the app's developers build on this to form an understanding personal bond with the user. This is a role that in *Shattered* is personified by Dermot O'Leary, and both act as reminders of the entertainment (simulation) value of the media.

Although the app relies very much on a scientific discourse, it is also self-aware enough to recognise the aspects of this that polarise many people - that it can stereotypically be cold, stiff and severe - and plays up the fact that it occupies a space in which it can be scientific enough to have value without being *too* scientific for the fickle user most likely in pursuit of a consumer or entertainment experience. This points to the recognition that for some, science can represent discipline, whereas 'wellness', and the autonomous acquiring of tools of knowledge represent self-improvement. For the user, the appeal in the product comes from access to *freedom* - freedom from sleeplessness and self-ignorance - and for that reason, discipline is shunned.

Representations of science, medicine, and nature are used to create a commodity image that is representative of care and wellness for the user. The surreality of these, however, is in view in the over-pronounced branding and tone, and the user understands the double meaning of the image as what theorist Jean Baudrillard would call the "hyperreal" - a simulation of a different realm from everyday life.[111]

The user is encouraged using friendliness and whimsy usually lacking in stereotypes of medical fields and more suggestive of consumer experiences, indicating the presence of individual, personal care that is expected as a customer. The care of the self, here, is tied to the tools that can be acquired to ensure it.

2. Individualism

2.a Intimacy

The core purpose of the app is for "self-knowledge", which is reflective of the Self-Quantification movement's discourse of "mindfulness of one's body and one's life".[112] A very individual goal, this creates a need for a design and narrative that allows every user a different, individual experience of the same generic functions.

The undulating waveform is information created specifically for the user, and each one is personal and custom; an index of the user's existence as an individual. (Fig.16) The app confirms this to users - it views and measures them, and it knows them in ways that they are not able to know themselves, revealing new parts of the self that the user never gets to experience or, more importantly, view.

The instructions that guide the user through how to place the app in their bed are realistic stylised 3D illustrations, again building on its pseudo-scientific narrative whilst remaining friendly and personal. The bed in these illustrations, of which the user sees only a corner, is detailed and personal enough to be slept in, but clean, generic and minimal enough to belong to anyone, allowing the user to imagine themselves in it. (Fig.20)

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[111] J. Baudrillard, *Simulacra and simulation*. Ann Arbor, University of Michigan Press, 1994.
[112] Lupton, p.35.

2.b Femininity/Masculinity

A healthy-looking young white feminine hand is the default hand that shows the user how to arrange the phone in their bed - the moment in which the relationship between the user and the phone/app is at its most intimate. (Fig.21) Here, the masculinity of Alan Derickson's "manly wakefulness" is directly opposed by the femininity of restfulness (which reaches its epitome in the expression 'beauty sleep'). This could represent the intended user base, in pursuit of the feminine values of self-improvement, health and a balanced life. It could be a personification of the app itself, in service to the masculine values of health as performance and achievement and using the generic human representation of care and maintenance to remain personal. In any case, what it does depict is a default representation of care and receiving care.

According to Lupton, studies show that although "the more public face of self-tracking" is that of the "American middle-class white man with high levels of digital technological know-how", in the user bases, there is more of a mixed gender representation than might be expected.[113] With *Sleep Cycle*'s general branding sitting somewhere between these traditional feminine and masculine narratives often overrepresented in health and wellness branding, and its purposely scientific-objective tone (with friendly interludes), the app allows just enough ambiguity for the most fitting scenario to be projected by each user - making the experience yet more subtly intimate.

The App Store description of *Sleep Cycle* also advertises the possibility to "compare your sleep with the rest of the world".[114] This is only available to premium users, and it's not explained exactly what is being measured, how or by whom - details and evidence are less important than the experience itself - but places the user in the context of a global sleep network that operates at all times, and in all different time zones. Here, sleep is empirical and the ability to compare with others allows for further self-quantification, regardless of the outcome. The fact that this is a premium feature, tapping in to the user's curiosity and need to quantify and compare, is revealing of what the app's developers expect to be enticing to users.

Individualism is stressed throughout the app to give value to its functions, but also is a reflection of the will towards self-optimisation in the 'care of the self' – Foucault's concept of the moral obligation to control and maintain oneself that is constitutive of good citizenship (as I will explain later).

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[113] Lupton, p.32.

3. Fear/Control

The app is consistently positioned as a revealer of information to which the user does not have access, plucking them from the uncertainty of not being able to fully understand their sleep patterns, and presenting them with certainty. Control and security are more subtle, but still present themes that run throughout the narrative of *Sleep Cycle,* building on the anxiety of sleeplessness and inefficiency emphasised by alluding to "nightmares" and vague symptoms of sleep deprivation such as "irritability" and "emotional problems" - both universally understood to be bad traits. (Fig.22; Fig.12)

Quantified-Self movement co-founder Gary Wolf states that "If you want to replace the vagaries of intuition with something more reliable, you first need to gather data", suggesting that life without these data is unstable and out of control.[115] Lupton draws on the fact that digital information is often conceptualised as liquid - a 'flow' or 'stream' - and that visualisations of this data allow for a suspension of this movement, making what was 'liquid' more 'solid', and fixed in time.[116] This suggests that the control of both time and movement are central to the appeal of self-quantification for users, and this is echoed throughout *Sleep Cycle*'s narratives of knowledge, control, and risk (the irony of this being in the reported emergence of orthosomnia as a direct result of using sleep-tracking apps).

The phrase "science instead of chance" is used in the app's description to outwardly reiterate the infallibility of science and affirm the app's significance, but also acts to introduce an element of fear to the user. (Fig.11) Chance implies uncertainty, which in this case - due to the severity of sleeplessness that has already been communicated - is not worth the risk of sleeping without the extra security measure of self-quantification. This plays on the fact that, as noted by Lupton, whilst self-tracking can be a positive experience to do with affirming control, for some it signifies weakness or lack of self-discipline; it is a desperate attempt to regain control.[117]

The theme of control appears a second time, once again amplifying the narrative of control also explicit in *Shattered*: "A fixed alarm clock is a lottery. If you are lucky it wakes you in light sleep". (Fig.13) The implication here is that a lottery is a risky uncertainty, playing into the

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[114] 'Sleep Cycle alarm clock on the App Store', *Apple App Store*, [website], https://itunes.apple.com/us/app/sleep-cycle-alarm-clock/id320606217?mt=8 (accessed 16 February 2018).
[115] Gary Wolf cited in J. Belli, 'Unhappy? There's an App for That', *Digital Culture & Society*, 2, 2016, http://www.degruyter.com/view/j/dcs.2016.2.issue-1/dcs-2016-0107/dcs-2016-0107.xml (accessed 6 May 2018)
[116] Lupton, p.88.
[117] Ibid., p.37.

fear of a loss of control and of humiliation - only fools play the lottery, and you, the user, are not a fool. This is ingratiating to the user - after all, the app has already proven to know them so well.

In the App Store, many users give positive reviews for the app based on their satisfaction with simply being able to *see* how they sleep in the graphs that are created, without any mention of the impact that using the app has on their experience of sleep (particularly interesting given that many will sleep with their phone in their bed, which would be an understandable disruption to a sleep routine). Lupton notes that studies on self-quantification users reveal that many do not find any of the information generated useful or interesting, but still enjoy "seeing and reflecting upon their data", suggesting that actual functionality can be subordinate to visual experiences.[118] Even without any outcomes or correlation to lifestyle changes, the transfer from "fleshly sensation, behaviour and perception" into digital data is "a way of mastering the uncertainties, inaccuracies and vagaries of human embodiment".[119]

Perhaps furthermore evident of this phenomenon, *Sleep Cycle*'s only active function is to set off alarms increasing in volume at incremental stages leading up to a final waking alarm, and emphasis is put on this as a "way to wake up", and not so much as tied to knowledge about sleep. (Fig.11) Many users in their reviews on the App Store express satisfaction with the fact that the alarm wakes them up in "a nice way", or even just that the alarm works at all (the most basic requirement of it), suggesting that the function of the app is less important than the perceived use of the app, even when this is almost explicitly recognised.[120] It is indicative once again of the importance of the experience itself over the empirical outcomes of the app's functionalities, and of the negotiation between simulation and reality, where both elements are interchangeable.

Sleep Cycle points towards self-optimisation as presented as 'for the self' but offers few practical tools to understand any parts of the self in any meaningful way (and actually adds to the often-argued reasons for a sleeplessness epidemic of constant stimulation). Its success benefits from the dissolving of self-awareness that the erosion of time and the outsourcing of self-knowledge under capitalist neoliberalism create.

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[118] Ibid., p.35.
[119] Ibid., p.54.
[120] 'User Review by Deb Pettit on Sleep Cycle alarm clock - Apps on Google Play', Google Play Store, [website], https://play.google.com/store/apps/details?id=com.northcube.sleepcycle&hl=en&reviewId=gp%3AAOqpTOE0shHKskZcORy8oPXbCvN8OLDrf0poQeHkfOWd3lKwlx1lXCfmWUPVno_JODAI_4IbGwvq5WnUdLx2yw (accessed 14 May 2018).

4. Surveillance

The most central theme and function of *Sleep Cycle* is surveillance, which is enacted both by the device, and by the user. The user mobilises access to knowledge provided by the app to self-surveil and uncover hidden parts of the body. This is described in the app as "monitoring" and "measuring", once again building on an objective scientific narrative. (Fig.11) Although the explicit function of the app is to measure and represent data, it also acts as a profiler, pointing towards the constitution of a 'bad sleeper' or a 'good sleeper' with its graphs. It compares these data to situate the user in relation to the profile of the average sleeper in places across the globe, further revealing and constituting a part of the user's identity.

Profiling is a key component of biometric surveillance as present in regimes of biopower, and the self-surveillance evidenced in these apps is also a form of biometric surveillance, enacted through technology, with quantification and metrics forming a key part of its foundation. The panoptic structure of biopower that Foucault describes, however, has here become decentralised, and the driving force behind it becomes the ethical obligation of the 'care of the self' - here not so much oppressive as "productive of certain modes of and practices of selfhood and embodiment".[121] Once again, the care of the self involves spying on oneself.

It is interesting to note that the developers of *Sleep Cycle* went on to create one more time-based self-quantification lifestyle app and then turned towards making software for autonomous drones under the name *Everdrone* - a shift perhaps indicative of an intensification of self-surveillance upheld by the blurring of machine and body, and of discipline and entrepreneurship (both personal and commercial).[122]

Summary

Sleep Cycle's representations of sleep as well as its functions as a tool for self-quantification are both ambiguous and contradictory. Sleep can be optimised and sleeplessness is a danger, and those who don't sleep to their optimum capacity, for the optimum amount of time are foolish. At the same time, key disturbances to sleep in contemporary lifestyles are barely mentioned.

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[121] Lupton, p.60.

Responsibility for sleep falls squarely on the user, and barely touches their environment. 'Reality' is referenced through scientific visualities and language, but the app overall is understood to be predominantly non-scientific.

Individualism lies at the heart of the app, with "self-knowledge" symptomatic of both the reliance on the scientific narrative, and neoliberalism's centering of the individual as the kingpin of society. Self-tracking emerges, hand in hand with the proliferation of big data and commercial health industries as a new social practice in self-knowledge and individual realisation. At the same time, the individualism of self-tracking is sold as a collective experience - a Huffington-style 'sleep revolution'.

Fear and control are used to underline the need for the app, and to dramatise the experiences of sleep and sleeplessness to become something that is less the banal everyday and more of a conscious experience. Surveillance is the mechanism by which users learn to learn themselves.

In short, the continued expansion of biopowers (enacted through surveillance) combined with neoliberal values of self-government of the individual, plus the growing wealth of technologies of objectivity and knowledge-production form the perfect framework for the emergence of self-tracking practices.

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[122] 'Software for autonomous drones', *Everdrone*, [website], everdrone.com, (accessed 14 May 2018).

Chapter 3: Neoliberalism

As I have shown, both of these sources point to four central discourses, which themselves are complex and contain contradictions: reality, individualism, control and surveillance. Both examples play on reality/simulation and societal regimes of truth such as the objective knowledge of science and technology. These four discourses are also central to discussions of neoliberalism described in the compression of time under capitalism, reality TV, self-quantification, biopolitics.

With shifting notions of the self emerging from the assemblages of body and machine described in these two case studies (device and screen media), social theories on selfhood can be applied to self-tracking phenomena and representations in reality TV to create an understanding of their relationship. Foucault's ideas on power, surveillance, biopolitics and selfhood in particular are relevant to deconstructing the cultural significance of these. In these concepts, Foucault situates the source of power and knowledge within the individual and their "governmentality" - their self-reflection, self-management, and adherence to rules, and negotiation of freedom.

Foucault's 'Biopolitics' refers to the ways in which power is exerted on populations less by disciplinary means, but by encouraging the self-regulation of the body and the welfare of the population, or "the construction of the body in technologies of power".[123] 'Technologies of the self' are the tools that allow individuals to enact these practices of selfhood and self-regulation.

In this section, I start with a short description of how I define neoliberalism and its key concepts, and then relate each of the four discourses extracted from the empirical material to these concepts.

Foucault's analysis of self-regulation practices are pertinent to the environment of neoliberalism, which "champions self-responsibility, the market economy and competition".[124] The founding principles of neoliberalism are the protection of the global free market and the reduction of state involvement in the economy, leading to a dismantling of centralised government and the reinvention of government as a network of entrepreneurial enterprises.

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[123] M. Poster, 'Swan's Way: Care of Self in the Hyperreal' in R.Bishop (ed.), *Baudrillard Now: Current perspectives in Baudrillard studies*. Oxford, John Wiley and Sons Ltd, 2009. p. 85.
[124] Lupton, p.47.

Foucault's synopsis of the neoliberal model was that "one must govern for the market, rather than because of the market".[125]

The consequence of this reinvention is the widespread belief in competition - society comes to resemble the market governed by competition where individuals are owners of their own talents and capabilities, with the state taking a minimal role in citizen welfare and governance as part of its policy of governing from a distance. Citizenship is tested through these means as part of competition, measurement and quantification.

1. Reality

As described by David Harvey in his theories on time-space compression outlined in Chapter 1, the production and consumption of images increases the pace of experienced time. Both *Shattered* and *Sleep Cycle* form part of the rapid flow of commodity images which subsists on a fast turnover and relies on this acceleration in consumption. Harvey notes that this increase in speed opens to deeper questions around identity for the individual, and "explains the "aesthetic concern for 'basic institutions'" - the search to find patterns and frameworks upon which to construct ethical and informational grounding.[126]

Grasping for identity and self-knowledge, the individual looks to the image flow, quantifying their time, and learns through a waveform whether they sleep more or less than someone on the other side of the world. They see the 'reality' on screen of sleeplessness, recognising that they are thankfully not subject to this level of discipline, and then they are presented with 'freedom' - to optimise and achieve, which are key to their self-construction.

Technologies and media as cultural artefacts play a key role in the formation and representation of the ideal citizen, and become central to individual processes of self-actualisation, as a type of technology of the self. This is a role acknowledged by reality TV icon

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[125] M. Foucault, *The birth of biopolitics: lectures at the Collège de France, 1978-79*. M Senellart (ed), trans. Graham Burchell, Michel Foucault's Lectures at the Collège de France, New York, NY, Palgrave Macmillan, 2010, p.121.
[126] Harvey, p.290.

and media-personality entrepreneur Kim Kardashian when she says "If I look at the message I'm portraying, I think it definitely is be who you are, but be your best you".[127]

The message to "be your best you" signals the relevance of television as a message-carrying media, which Ouellette and Hay also similarly describe when discussing the early consideration of television as a way to mobilise "a gullible mass that needed guidance in the liberal arts to participate in the rituals of public democracy".[128] Meanwhile, it also signals the veneration of self-improvement and the portrayal of different 'selfs' that underpins working towards the good citizen: the culture of individual entrepreneurship represented in 'being your best you' is an ideal at the heart of neoliberal ideology. This is a role that Carla Freeman terms the "entrepreneur of the self", and Alan Derickson describes as part of the "cult of flexibility".[129]

With neoliberalism built in the foundations of economics, measurement and quantification represent truth. Competition relies on empirical quantification and the scientific approach becomes the primary source of truth and reality, with any gaps left behind filled in by pseudo-scientific entrepreneurship. The role of scientific truth and pseudo-science are key to both case studies, as outlined in the previous chapter. In the case of *Sleep Cycle*, the scientific narrative works to situate itself in the position of offering something to the user, and in *Shattered* to validate the dramatisation of sleep deprivation (without the emphasis on the 'experiment', regardless of how scientifically accurate, *Shattered* would appear a more sinister project). These are part of not only media representation but also of the constitution of citizenship when deciding where and how to choose knowledge to base actions on; and therefore how to be a literate media-scientific citizen.

2. Individualism

As Alan Derickson outlines, narratives of the machismo of sleeplessness are predominantly found in working life in industries that are traditionally masculine, such as transportation and

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[127] 'Kim Kardashian: my life as a brand', *The Guardian*, 7 September 2012, http://www.theguardian.com/lifeandstyle/2012/sep/07/kim-kardashian-life-as-brand (accessed 14 May 2018).
[128] Ouellette and Hay, p.3.
[129] Derickson, p.142.
C. Freeman*, 'Neoliberalism: Embodying and Affecting Neoliberalism'* in F. Mascia-Lees, ed., *A companion to the anthropology of the body and embodiment*. Blackwell Companions to Anthropology, 13, Chichester, West Sussex, U.K.; Malden, MA, Wiley-Blackwell, 2011. p.356.

construction. He acknowledges that there is a total void of studies into the sleep habits of similarly 24-hour, but traditionally feminine fields, such as nursing and domestic service.[130] This goes hand-in-hand with the idea of masculine self-sufficiency and neoliberal individualism - as Derickson puts it, "real men need little sleep, and certainly do not need the government to tuck them into bed".[131] The value of sleep is overlooked or diminished not exclusively as a type of non-productivity, but as part of the many types of unpaid maintenance labor that are traditionally considered feminine such as domestic housework and childcare.[132] In the cases outlined in my analysis, these types of affective labor are both diminished (*Shattered*) and appropriated by the market (*Sleep Cycle*), from which they have historically been ostracised (for better or worse). The self-actualised individual then is faced with the choice to optimise, or to eradicate.

In both *Sleep Cycle* and *Shattered*, individualism and the care of the self have a key place in the construction of the responsible citizen-user and citizen-contestant. They are examples of how media have become the sites of the production of new relations with the self.

According to Byung-Chul Han, neoliberal capitalism "as a society of achievement and business, fosters individuality".[133] This is echoed in Lupton's description of neoliberalism, which, in its reinvention of a minimal state influence "champions self-responsibility; the market economy and competition".[134] These are significant aspects of the narratives of *Sleep Cycle* and *Shattered*, tying into the "flexibility regime" described by Derickson previously mentioned. In this regime, the ambiguity between work-hours (productive hours) and non-work-hours (non-productive hours) allows for sleep to be considered both useful and futile, with the ultimate objective the same - to be flexible, adaptable and productive. Within this context, according to Ouellette and Hay, "cultural technologies (…) become instrumental as resources of self-achievement in different and political significant ways".[135]

Foucault's idea of the 'care of self' rests on the idea that appropriate displays of citizenship are learned behaviours stemming from practices learned through caring for the self, the body and the soul.[136] This is viewed as a moral imperative with the final objectives of happiness, health and productivity reached through responsible and self-governing citizenship,

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[130] Derickson, p.146.
[131] Derickson, p.xiii.
[132] Whilst going into a discussion of this topic is beyond the scope of this thesis, Silvia Federici and Nancy Fraser are among the scholars for whom these types of affective labor are a central concern, and from where I draw my understandings of them.
[133] B. Han, *The Burnout Society*. California, Stanford University Press, 2015. p.17.
[134] Lupton, p.47.
[135] Ouellette and Hay, p.86.
[136] Lupton, p.46.

all the while reliant on self-awareness through reflection and self-knowledge through acquisition. The constitution of the good citizen is defined and upheld by power, and the citizen's actions determine their adherence to this - the subject both rules and is ruled. The will towards self-knowledge is, however, paradoxical, with the acquisition of self-knowledge perpetuating the existence of the lack of self-knowledge, and the blurring of work-time, rest-time, productivity-time and consumption-time exacerbate this lack.

For both *Shattered* and *Sleep Cycle*, users and contestants represent Freeman's neoliberal "heroic actor: supple, flexible, and keenly responsive to market fluctuations".[137] *Shattered* contestants adapt to resist sleep, whilst *Sleep Cycle* users respond to fluctuations in health and wellness (key to being a good citizen) and "retool" to "advance in uncharted directions".[138] Whilst in *Sleep Cycle*, care is the main theme - sleep is to be cultivated - the competitive nature of *Shattered* leads it more to achievement for the contestants - sleep is unnecessary to a true self-actualised player.

Whilst the care of the self ties in tightly to the ideals and practicalities of neoliberal regimes and thought, there is a risk, in trying to distinguish the complex motivations of the citizen, of reducing the social world, or audiences, to a homogenous mass. Although I do not reject the position myself, this complexity is key to consider when reducing individual actions to the economic model of the State (a traditionally Marxist idea that Foucault rejected).

Foucault took the position that the relation to the self, and the decision to actively care for oneself, is "neither narcissism nor self-indulgence", but "the first or final point of resistance to political power", reflective of his adage "where there is power, there is resistance".[139] He differentiates the care of the self as not "in order to live better or more rationally" or as a form of government, but to form "the best possible relationship to oneself" as "the principal work of art".[140] Audre Lorde famously echoed this sentiment in emphasising her position as a black woman when she said "caring for myself is not self-indulgence, it is self-preservation, and that is an act of political warfare".[141] In this case, Lorde uses the care of the self as a form of resistance

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[137] C. Freeman, *Entrepreneurial Selves: Neoliberal Respectability and the Making of a Caribbean Middle Class*. Durham, Duke University Press, 2014. p.17.
[138] Ibid.
[139] M. Foucault cited in M. Poster, 'Swan's Way: Care of Self in the Hyperreal' in R.Bishop (ed.), *Baudrillard Now: Current perspectives in Baudrillard studies*. Oxford, John Wiley and Sons Ltd, 2009. p.74.
M. Foucault, *The history of sexuality. Vol. 1: An introduction*. Reprint, London, Penguin Books, 1990. p.95.
[140] M. Foucault, et al., *The hermeneutics of the subject: lectures at the Collège de France, 1981-1982*. 1st ed, New York, Palgrave-Macmillan, 2005. p.448.
[141] A. Lorde, *A burst of light: and other essays*. Ixia Press edition, Mineola, New York, Ixia Press, 2017. p.130.

against power that works to exhaust and/or eradicate her due to her political and social positions, underlining the relationship between power (or lack thereof) and the care of the self.

From my own perspective, however, the citizen acting within restrictions defined by power and the citizen using self-management as a form of resistance are not necessarily opposing concepts, but point to the complex processes of self-actualising necessary to the individual as both governed and self-governing subjects. In other words, the individual explores their place between these as part of their self-creation. The pertinent question is not whether these media change the individual for the better or worse, but *how* the individual changes when taking part in these processes. That is to say, there is no clear division between 'good' or 'bad' effects of these processes anyway (self-actualising or citizenship-forming are not in themselves good or bad things), but taking part in the process itself is what changes the individual and their relationship to their self-image, regardless of outcome. Foucault's 'care of the self' came from ideas from the Hellenistic era of ancient Greece, and it is relevant to question how this changes when the constitution of the self changes - particularly with the introduction of information machines.

As I have shown in my case studies, individualism and self-governance are repeated discourses throughout both, which I understand as part Foucault's 'care of the self'. Although not exclusively tied to impositions of power, this is a negotiation for citizens, and is a key principle of the citizen under neoliberalism which is particularly important when knowledge is outsourced to endless numbers of market competitors in competition for the authority of knowledge.

3. Fear/Control

The use of fear and control in *Shattered* and *Sleep Cycle* to underline the necessity of sleep, and of self-governance/endurance build on the same anxiety that points towards the "aesthetic concern for 'basic institutions'" as put forward by Harvey.[142] This concern is amplified by an economic climate that works to reduce centralised institutions as points of knowledge and expertise, and replaces them with a mass of business and corporate sectors. As Lupton notes, "the realm of

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[142] Harvey, p.171.

technologies of optimisation has now expanded well beyond the clinic".[143] This puts the user-citizen-viewer, as well as contestants who perform citizenship, in the position of being tasked to decipher which information and choices are correct for them, and it is this process that is central to their practice of selfhood. Disciplining (and self-disciplining) strategies are utilised by all characters to control risk and support the effort to improve.

Teresa Brennan's idea that the temporality of globalised capitalism is incompatible with the temporality of the human body, suggesting a power exerted over the body coming from the framework of economic organisation, points towards a loss of control from the citizen over both time and the body. This is something represented throughout *Shattered*, for example, where, despite it being at the core of the whole program, time is compacted, forgotten and confused throughout. Contestants complain that sleep deprivation blurs their understanding of time, whilst viewers watch 24-hour surveillance footage of them condensed into 1-hour slots - the only visible marker of time coming from the timer that displays how long the contestants have been awake.

Negotiating these two incompatible and largely inflexible forces, the individual balances whether it is more possible to be in control of biology or the capitalist system, bringing to mind Fredric Jameson's remark that "it is easier to imagine the end of the world than to imagine the end of capitalism".[144] Brennan's idea of a system holding power over the body in this way is also reminiscent of Foucault's biopolitics.

Whilst Brennan refers to the physical demands of the body, Korean-German philosopher Byung-Chul Han offers an interpretation of Foucault's traditional idea of biopolitics more suited to a world which is increasingly deindustrialised and immaterial. In *Psychopolitics*, he adapts Foucault's traditionally more disciplinary power to describe one that is less exerted on the physical body, but more on the psyche. In the deindustrialised neoliberal era, he argues, capitalism doesn't work through discipline, but through endless option - "Instead of forbidding and depriving it works through pleasing and fulfilling. Instead of making people compliant, it seeks to make them dependent".[145] He describes this as key to the operation of neoliberalism, in line with Freeman's "heroic actor" and Derickson's "flexibility regime". In the epigraph and first chapter of *Psychopolitics*, Han makes reference to American artist Jenny Holder's "truism" on this

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[143] Lupton, p.68.
[144] F. Jameson, 'Future City', *New Left Review*, May-June 2003.
[145] B. Han, *Psychopolitics: neoliberalism and new technologies of power*. Futures, London; New York, Verso, 2017. p.14.

topic: "Protect me from what I want".[146] He describes the force of this "smart power" as a totalitarian force less tangible and more understated but equally (if not more) ominous as Orwell's 'Big Brother' or Bentham's panopticon, rooted in surveillance enacted through self-surveillance.[147]

4. Surveillance

In *The Burnout Society*, Han describes the position of surveillance which is delegated to "discrete individuals" as key to the operation of power in achievement-society - echoing his assertion in *Psychopolitics* that "confession obtained by force has been replaced by voluntary disclosure".[148] This is evidenced in the narratives of individual achievement in *Shattered* and *Sleep Cycle* previously described, but also in the discourses of surveillance and self-surveillance which uphold achievement and are common to both.

Han explains that achievement is a concept important to neoliberalism and capitalism for increasing the pace of production. He describes this as positivity (that you Can) and negativity (that you Should) - endless positivism sustains progress and activity because there is no final point of achievement and negativity (Should) disappears to allow for the mobilisation of self-image. Can is dependent on the individual, whilst Should depends on the enforcer.

The maintenance of surveillance is key to the achievement-society, but this is enacted by the achievement-subject rather than by enforcement - a self-sustaining machine is more efficient than one that must be managed. This is done by defining achievement and progress as tied to the self. The achievement-subject, according to Han, becomes "lord and master of itself".[149]

In *Shattered*, contestants are explicitly being surveilled by 'Big Brother', but implicitly surveil themselves and each other, all the while surveilled by the viewer. The general criticism of the tendency to voyeurism that is generally considered key to reality TV is that it normalises surveillance - watching signals value, or the management of risk in the watched. However, as discussed in my empirical analysis, the difference between watching and being watched is

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[146] Ibid., p.15.
[147] Ibid., p.13.
[148] Ibid., p.14.

increasingly blurred both within and beyond the screens, and these meanings break down. With individuals in late capitalism increasingly subject to information machines that occupy social and public spaces, all information comes to exist on a level plane. 'Reality' is less and less the unspoken or understood by default, but that which is emphasised as capturing 'the real'. There is no longer differentiation between the behaviours of the watchers and the watched.

In the case of *Sleep Cycle*, the explicit use is for users to surveil themselves (and/or their bodies), and the data archives that benefit from their downloads and subscriptions. Power increasingly operates through these modes of surveillance, but with the added "aura of scientific authority" - that they are objective and truthful; a break from the messy inconsistencies of human life. The user is given back control by submitting themselves to bodily surveillance. A repetition of Bentham's panopticon metaphor, self-management is enacted through the awareness of being surveilled. Domination is replaced by freedom, but this is in itself constraining.

The driving force of user-contestant-citizens is the will to be their 'best selves', at the peak of their achievement goals, building on the freedom offered by the endless choice of the capitalist free market, or as Baudrillard calls it "emancipation through the networks, screens and new technologies".[150] Mark Greif describes this outcome as a "punishment for our liberation", the only payoff of which is "a set of forms of bodily self-regulation that drag the last vestiges of biological life into the light as a social attraction".[151] The individual in this environment becomes, according to Baudrillard, "a fractal subject (…) closed on himself and doomed to endless identity".[152]

The complex and contradictory narratives around sleep described previously as being 'for the weak' vs 'for the strong' (Thatcher vs Huffington), or 'disappearing' vs the 'same as always' (Crary vs *Sleep Medicine Review* study) point to an achievement-society caught up in the Can over the Should - the endless 'what you, the individual, *Can* do', rather than a solid 'what we all *Should* do'. They suggest that time acceleration could be an assault less in physical terms, and more in psychosomatic terms - or *psychopolitical* terms.

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[149] B. Han, *The Burnout Society*. California, Stanford University Press, 2015. p.11.

[150] J Baudrillard cited in M. Poster, 'Swan's Way: Care of Self in the Hyperreal' in R.Bishop (ed.), *Baudrillard Now: Current perspectives in Baudrillard studies*. Oxford, John Wiley and Sons Ltd, 2009. p. 84.

[151] M. Greif, *Against Everything: Essays*. New York, Pantheon Books, 2016. p.6.

[152] M. Poster, 'Swan's Way: Care of Self in the Hyperreal' in R.Bishop (ed.), *Baudrillard Now: Current perspectives in Baudrillard studies*. Oxford, John Wiley and Sons Ltd, 2009. p.84.

Summary

Drawing on Han's ideas of achievement- and discipline- societies, we can say that the format of *Shattered* points towards a mock hyper-disciplinary society (the house) watched as entertainment by viewer-citizens inhabiting an achievement society, shown in the constructions of endurance and achievement throughout the series.

We can use this reflection of the viewer-society and the narratives of sleep and sleeplessness presented to viewer-citizens as a framework to understand the existence of *Sleep Cycle*. The app points towards a self-optimisation presented as 'for the self' but offers few tools to truly understand these hidden parts of the self in any meaningful way (and actually adds to the often-argued reasons for a sleeplessness epidemic of constant stimulation). *Sleep Cycle's* success relies on the dissolving of self-awareness, dissolving of structured time, and outsourcing of self-knowledge present under late modernity and neoliberalism. The will towards (and performance of) autonomy by the individual inadvertently exacerbates estrangement enforced by the blurring of work-time, rest-time, productivity-time and consumption-time.

These ideas of achievement, reality-construction, individualism, control and self-surveillance are key facets of the neoliberal ideal. That citizens behaviours are consistent with these suggest a certain subjectivisation at a *psychopolitical* level. At the same time, autonomy and subjectivisation are complex and increasingly intertwined, and when tied to the self, blur together. Self-realisation as an affective labor purely *for the self* is impossible to distinguish. Carla Freeman describes this influence of neoliberalism across all parts of existence as "tentacles" which "reach from on high—whether the corporation, the state, or agglomerations thereof, into the individual, the body, psyche, and cell".[153]

Sociologist Pierre Bourdieu describes neoliberalism as "domination through precariousness" - precariousness leads individuals to make choices for themselves to ensure some stability, without needing to be outrightly dominated.[154] Precariousness is evident in both case studies through the discourses I have previously mentioned, which are all built on a level of instability, ambiguity, or confusion - reality vs entertainment; individualism vs collectivity; control vs lack of control; self-surveillance vs self-knowledge.

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[153] C. Freeman, *Entrepreneurial Selves: Neoliberal Respectability and the Making of a Caribbean Middle Class*. Durham, Duke University Press, 2014. p.19.

[154] P. Bourdieu, *Firing back: against the tyranny of the market 2*. London, Verso, 2003. p.29.

Conclusion

The initial concept for this thesis came from the idea that the critique of changing time under capitalism must in some way inevitably have consequences on all parts of life. I was interested in the way the body is affected by the dominant economic and ideological model on an everyday level, and began to notice new relations with the body in terms of quantification and witness the glorification of sleeplessness in workplaces. Whilst all of these things have tied in to my research in some way, these initial questions led me to the images I have studied, and the images have led me to further questions. The view of the research was broadened purely by the wide scope of the everyday, the body, and political-economic models - even neoliberalism as a concept is extensive and murky. There are many more avenues for further research to explore with regards to sleep as experience, as well as sleep as representation in visual cultures that focus on the everyday, rather than romanticised or metaphorical notions of sleep.

The aim of the thesis became to identify how representations and understandings of sleep in mass culture reflect the effects of neoliberalism on constitutions and understandings of the self. I have done this by identifying 4 core facets of neoliberal values that are present in sleep-related media coming from seemingly apolitical mass culture.

In my reflections on the topic, I have taken note of Mitchell's assertion that the power of images is not a given, and that they should not be positioned simplistically as "political antagonist[s]" or "windows onto reality".[155] Images, according to Mitchell, have "lives of their own" and are both less powerful and also more complex than often understood.[156]

By looking at the case studies I have presented as a series of complicated discourses situated within specific political and economic contexts, I have tried to look into their "lives" and how they, to use Mitchell again, are not simply looked at but also "look back at us".[157] That is to say, images can be protagonists in relations and transfers of values and structures, rather than just static displays. In this way, the screen acts as an interface for the self, and within structures of power.

In these examples, the discourses I have described - self-surveillance, reality, individualism and control - are not so much thrust upon the individual viewer/user by power,

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[155] Mitchell, 'What do pictures want?', p.33.
[156] Ibid., p.352.
[157] Ibid.

but constitute a kind of alternating, mutually dependent power relationship between the user and the images themselves - whether it is a form of dominant panopticism or not. These images point out to the user what they *Can* be - *Can* being the dominating force of endless opportunity in achievement-society - and what they might lose control of - time, and their body's ability to adapt to it. Adaptability is key. The subject becomes "a *project*", but the "feeling of having achieved a goal never occurs".[158]

Foucault's ideas of governmentality are frequently compared to forms of neoliberal coercion, and I am aware of the risks of this - that it can be simplistic to reduce any forms of media output or individual action to the effects of economic or political models. Whilst these case studies represent in some ways exactly 'what neoliberalism wants' in terms of self-regulation, the difficulty is in distinguishing whether they are also 'all that we can get'. At the same time, as I have explained previously, I want to point out how these media and individual actions fold into, or adapt to the narratives that are brought about by political and economic models (regardless of whether they disrupt them or not). Almost anything can fit into the discourses of neoliberalism - self-surveillance becomes self-regulation; self-regulation becomes self-care; individualism becomes community; the spectacle becomes reality; sleep becomes sacred, or it becomes wasteful. Anything goes because, again, adaptability is key.

Furthermore, I reject the contemporary nostalgic vision of a time before technology when the pace was slower, as well as the ensuing blame on technology for the problems of contemporary neoliberal capitalism. As pointed out by Derickson and Reiss, critiques of the dangers of sleep in 24-hour society have been emerging in the US since the 1990s - before the advent of the (often disparaged) smartphone and more widespread internet access.[159] Additionally, as elaborated in my introduction, sleeplessness has been a source of commodification since the Victorian times with "electrified gadgetry", suggesting that the widely reported strain of technology on sleep is perhaps not the only or initial point of tension.[160] Just as the idea of reaching a point of 'pure' self-realisation (as offered in the *Sleep Cycle* app) is a simplistic, almost puritan type of mysticism, the idea that sleep offers a respite from the colonisation of the everyday by capitalism is also problematic, as my research has suggested. At the same time, there is no doubt that technologies have a profound effect on the everyday, and that sleep problems can be exacerbated this. In any case, whether sleep habits have or haven't

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[158] Han, *The Burnout Society*, p.39.
[159] National Commission on Sleep Disorders Research (U.S.), *Wake Up America: A National Sleep Alert: Report of the National Commission on Sleep Disorders Research, Volume 1*. Washington, D.C., United States Department of Health and Human Services, 1993.
[160] Reiss, 'Wild nights', p.178.

changed, as suggested by contradictory studies that I have presented, the way that they are framed is increasingly complex. The question here is not whether the use of technologies, or the prominence of self-management, or knowledge-production are in themselves detrimental or beneficial to the individual, but how they change core understandings of the self.

As the dust settles on the hyper-masculine capitalism of 1980s wall street, sleep shifts from Thatcher/Trump wakefulness to Huffington/*Sleep Cycle* optimisation and self-knowledge, underpinned by value of individualism which has come to be taken as a given. All of this is part of the same system, and, although sleep is maybe one of few universal human experiences, those who can't take part in either case are excluded from the narratives.

Sleeplessness is a weapon of psychological warfare, just as it is part of social inequality, as well as a manifestation of elite masculine strength (as displayed in *Shattered*).[161] The Huffington sleep revolution and *Sleep Cycle* don't aim to tackle reportedly key causes of widespread sleeplessness such as social inequality and achievement-society values, suggesting that they are not even so much about sleep as about individual control. Where Crary, Reiss and Derickson would maybe all agree is that Arianna Huffington's "sleep revolution" or the optimal sleep of *Sleep Cycle* won't come about by adapting and pandering to neoliberal values for the self, or without addressing ever-expanding working schedules, the disappearance of welfare that often comes hand-in-hand with the neoliberal model that drives them, and the subsequent positioning of sleep as a form of domination.

My position here is therefore that sleep does not offer a space for revolution - and I equally don't intend to use the metaphor of sleep as a 'dreamlike' state to describe citizens under distraction as used by Walter Benjamin and Guy De Bord - if anything, sleep has been manipulated in a way where a more fitting form of resistance would be literally to do less of anything, including affective labours, rather than striving to do more of anything (not that this would be an ideal). My position is that sleep has come to be part of the colonisation of everyday

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[161] B. McKernan, 'Amid the carnage in Yemen, civilians also face consequences of the US war on terror', *The Independent*, 15 November 2017, http://www.independent.co.uk/news/world/middle-east/yemen-al-aqaeda-us-counter-terrorism-drones-navy-seal-raids-adhlan-marib-saudi-arabia-civil-war-a8057106.html (accessed 11 May 2018).
C. Friedersdorf, '"Every Person Is Afraid of the Drones": The Strikes' Effect on Life in Pakistan', *The Atlantic*, 25 September 2012, https://www.theatlantic.com/international/archive/2012/09/every-person-is-afraid-of-the-drones-the-strikes-effect-on-life-in-pakistan/262814/ (accessed 11 May 2018).
'Data Briefs - Number 230', *Centers for Disease Control and Prevention*, January 2016, https://www.cdc.gov/nchs/data/databriefs/db230.htm (accessed 11 May 2018).

life, to use a term from Henri Lefevbre, not only by capitalism, but with neoliberalism affecting self-image and personhood at the most core parts of the everyday (sleep being part of literally every day) human biology.[162] This isn't something that is imposed with force from above, but is inscribed into everyday vernacular, behaviour and visuality so deeply that it becomes indistinguishable.

This is, however, not a position that offers no space for autonomy or resistance to power, and I believe that it is not a case of simply being resigned to dominant structures, but of questioning them - in this case through images, following Mitchell's key question "what do pictures want?", which in turn points to these structures. Trying to create a dialogue with the images instead of instilling them with immediate perceived meaning reveals a mix of their "desires", and in this case helps to explain the existence of so many complexities with regards to sleep.

Shattered was aired daily for a specific period of time, and focused on the everyday (24-hour) lives of its contestants living in a house together. Meanwhile, daily self-quantification apps such as *Sleep Cycle* are used to track a bodily function that happens, for most people, literally every day. These media are very much part of a landscape of the everyday/every day, and as part of relatively easily accessible mass culture, represent this on a wide scale. By presenting the complex discourses of sleep that they deal with (as well as the problems in defining them), I am trying to avoid giving undue one-sided power to these images, but exploring how neoliberalism, capitalism, subjectivity and selfhood tie into the many complicated narratives of sleep that I have identified in the examples at an everyday level.

Questioning the everyday (maybe following the traditions of feminist work on affective labour and Lefebvre's critiques) and widely accepted discourses can be a type of confrontation in itself. Just as the neoliberal tentacles restrict, they also leave gaps and openings - the difficulty is in finding the space (and time) to breathe.

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[162] H. Lefebvre, *Critique of Everyday Life: the one-volume edition*. One-vol. ed, London, Verso, 2014.

Appendix

Fig.1 – Montage of health and safety precautions.
Shattered, Episode 1, Channel 4, 2004, [TV program].
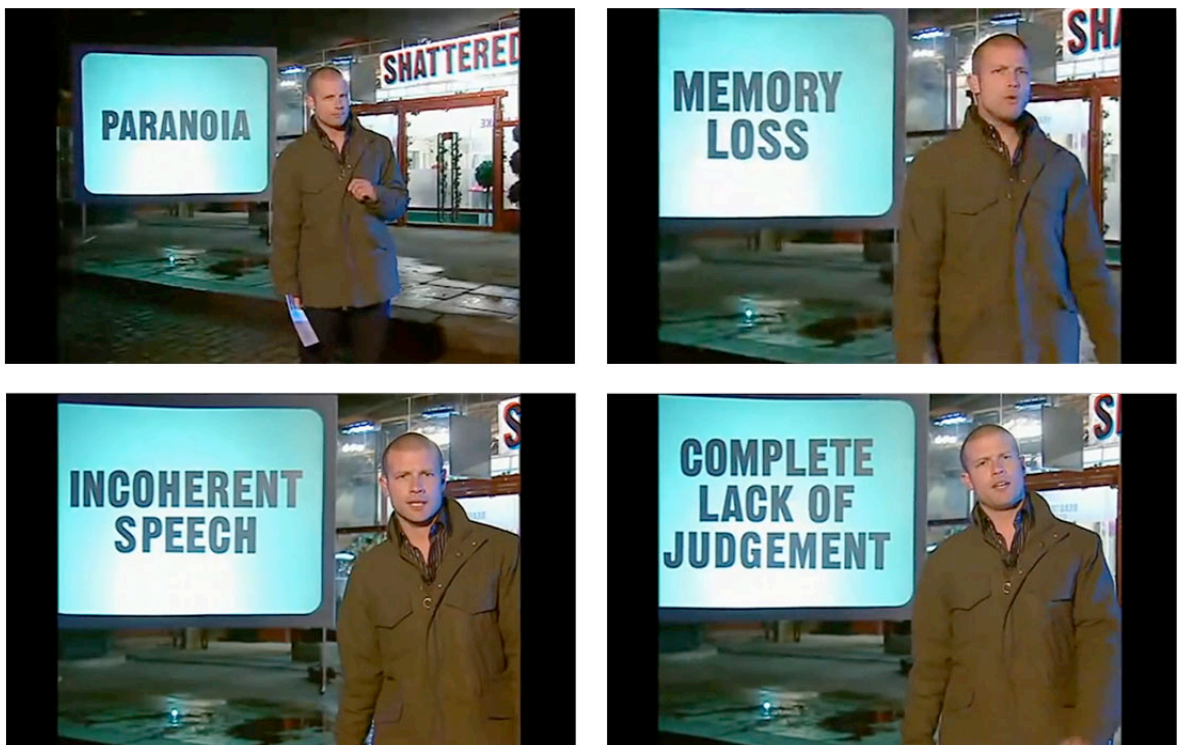

Fig.2 – Dermot O'Leary explains symptoms of sleep deprivation.
Shattered, Episode 1, Channel 4, 2004, [TV program].

Fig.3 – Dermot O'Leary presents 'The Lab'.
Shattered, Episode 1, Channel 4, 2004, [TV program].

Fig.4 – Dermot O'Leary's sleep deprivation video diary.
Shattered, Episode 1, Channel 4, 2004, [TV program].

Fig.5 – Dermot O'Leary presents his bedroom adjacent to the *Shattered* house.
Shattered, Episode 1, Channel 4, 2004, [TV program].

Fig.6 – The Studio part of the *Shattered* set.
Shattered, Episode 1, Channel 4, 2004, [TV program].

Fig.7 – Ken Hames describes his experience of having visions of a cold beer whilst sleep deprived in the military.
Shattered, Episode 1, Channel 4, 2004, [TV program].

Fig.8 – Ken Hames places contestants in stress positions.
Shattered, Episode 1, Channel 4, 2004, [TV program].

Fig.9 – Image used in *Shattered*'s credits and mid-program ident.
Shattered, Episode 1, Channel 4, 2004, [TV program].

Fig.10 – Aerial image of the *Shattered* house shown at the beginning and end of each episode.
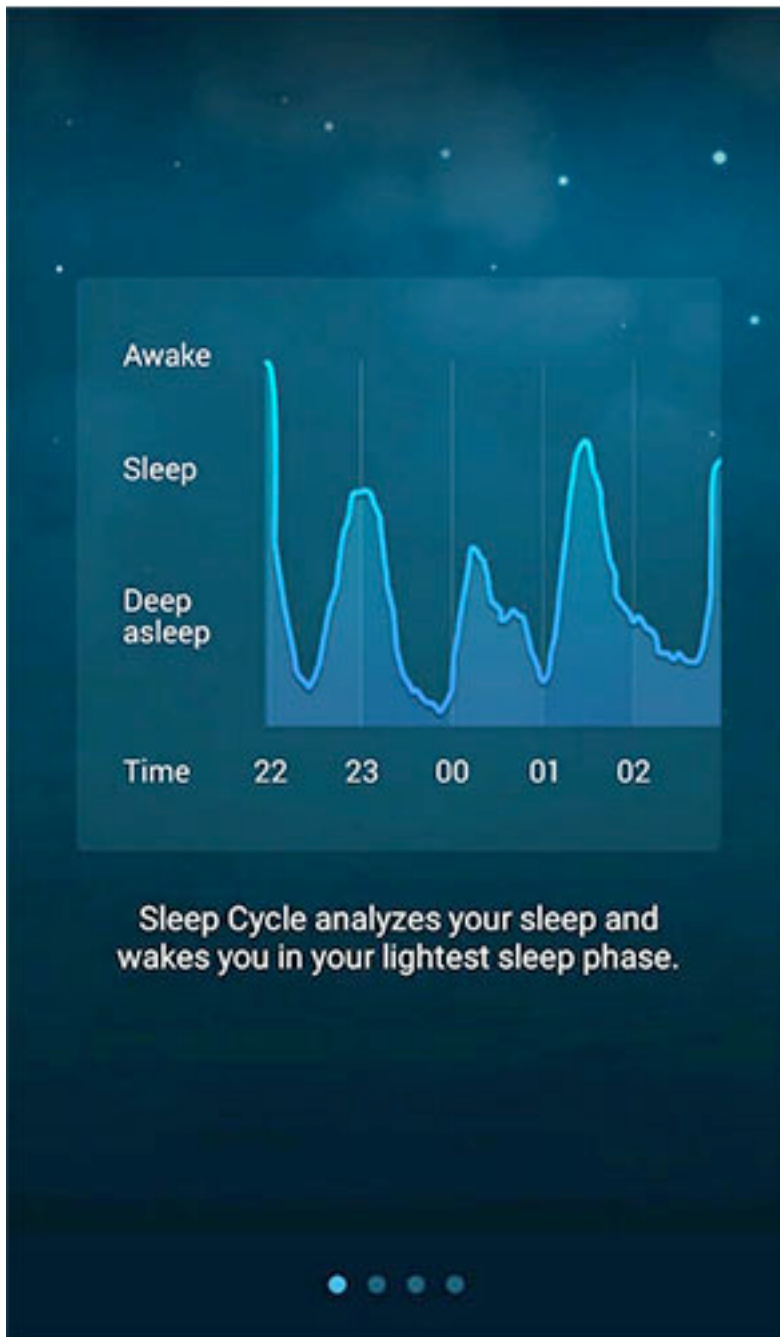*Shattered*, Episode 1, Channel 4, 2004, [TV program].
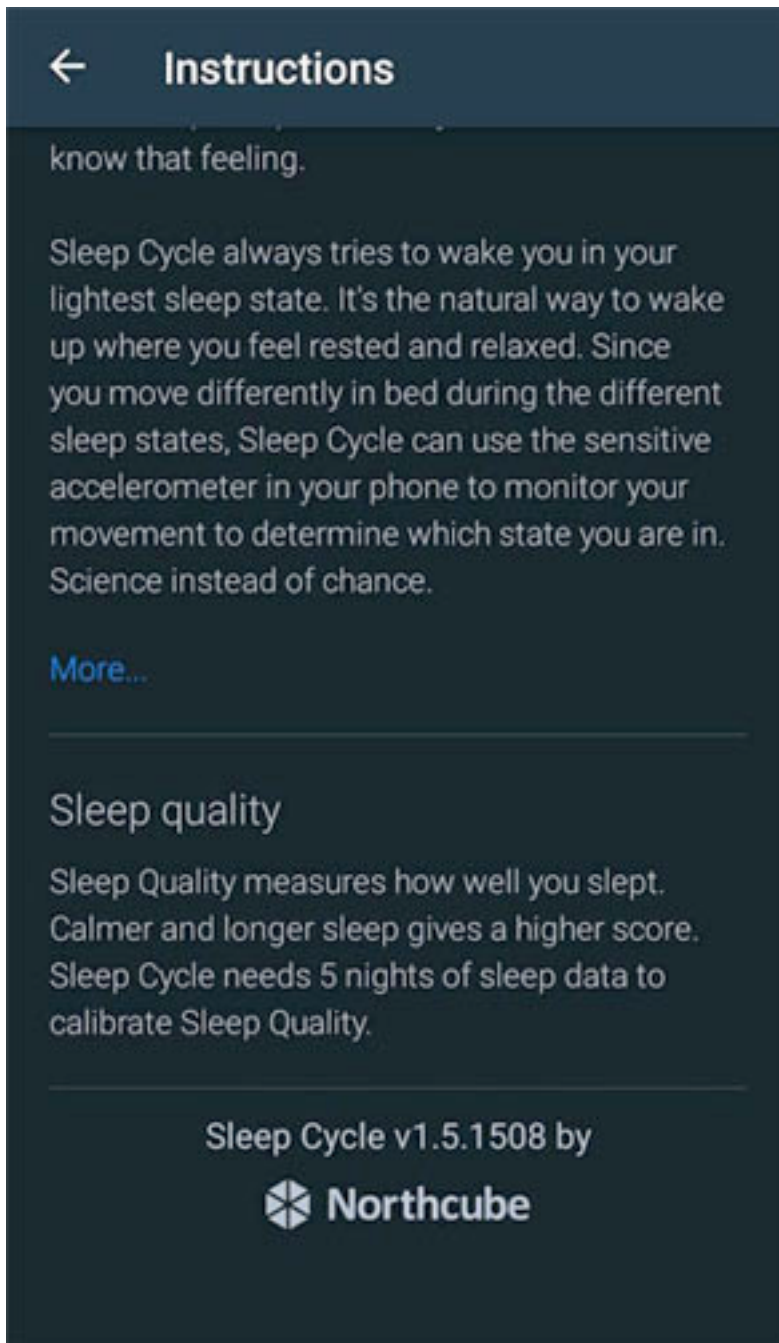
Fig.11 –*Sleep Cycle* instructions view.
Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 10 February 2018).
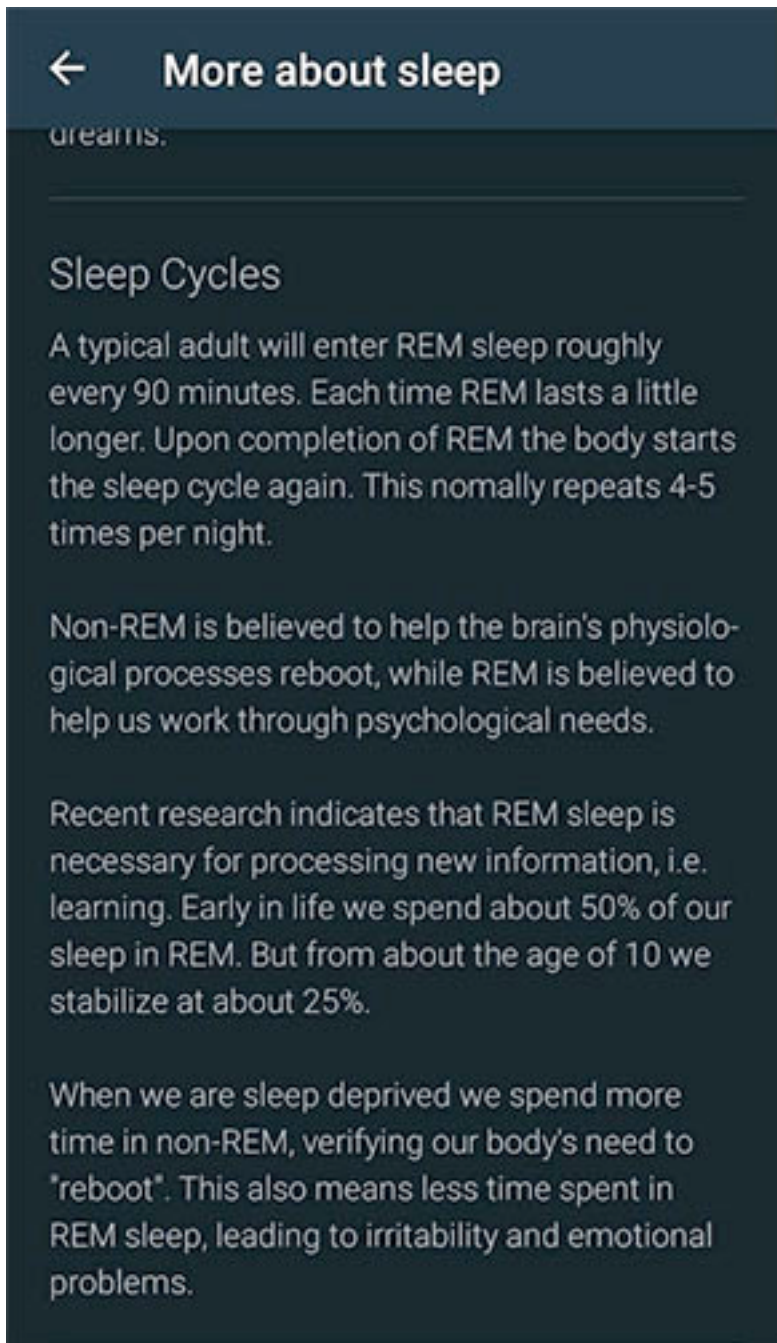
Fig.12 –*Sleep Cycle* informational view.
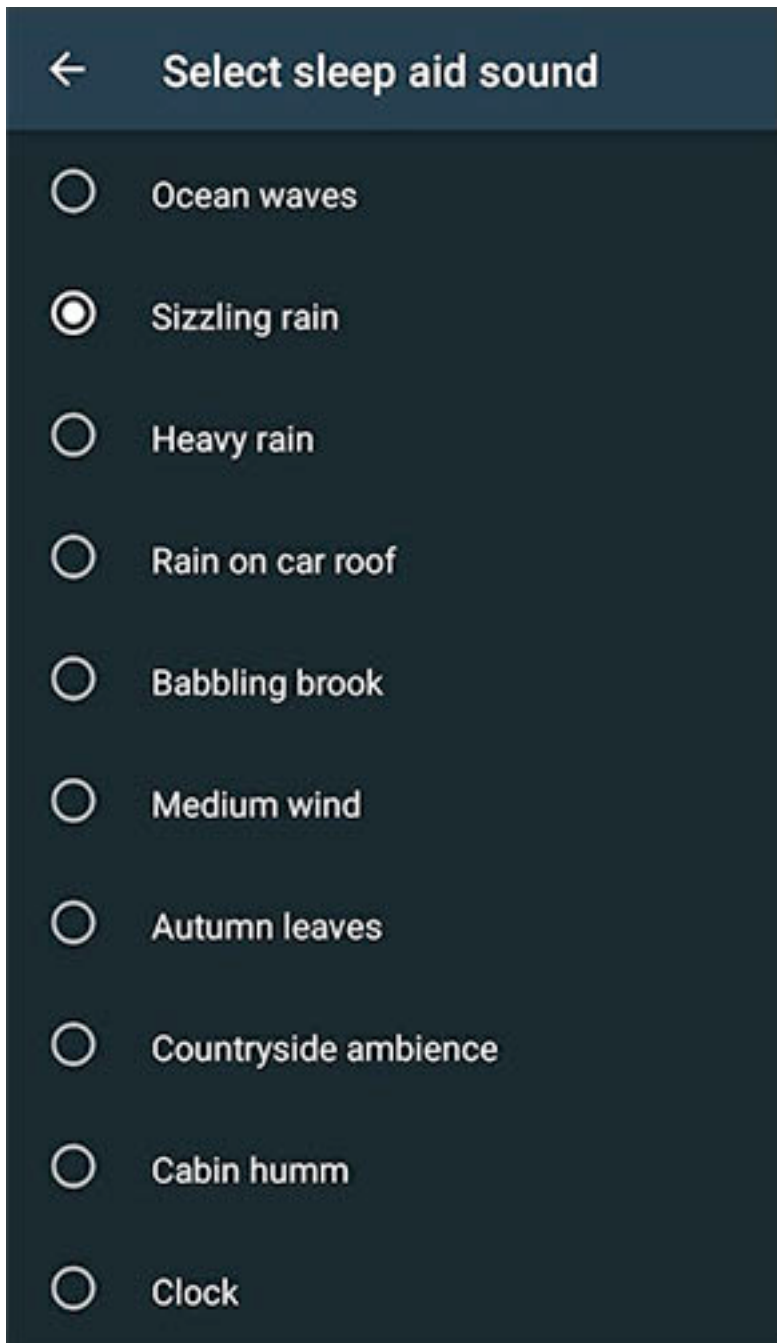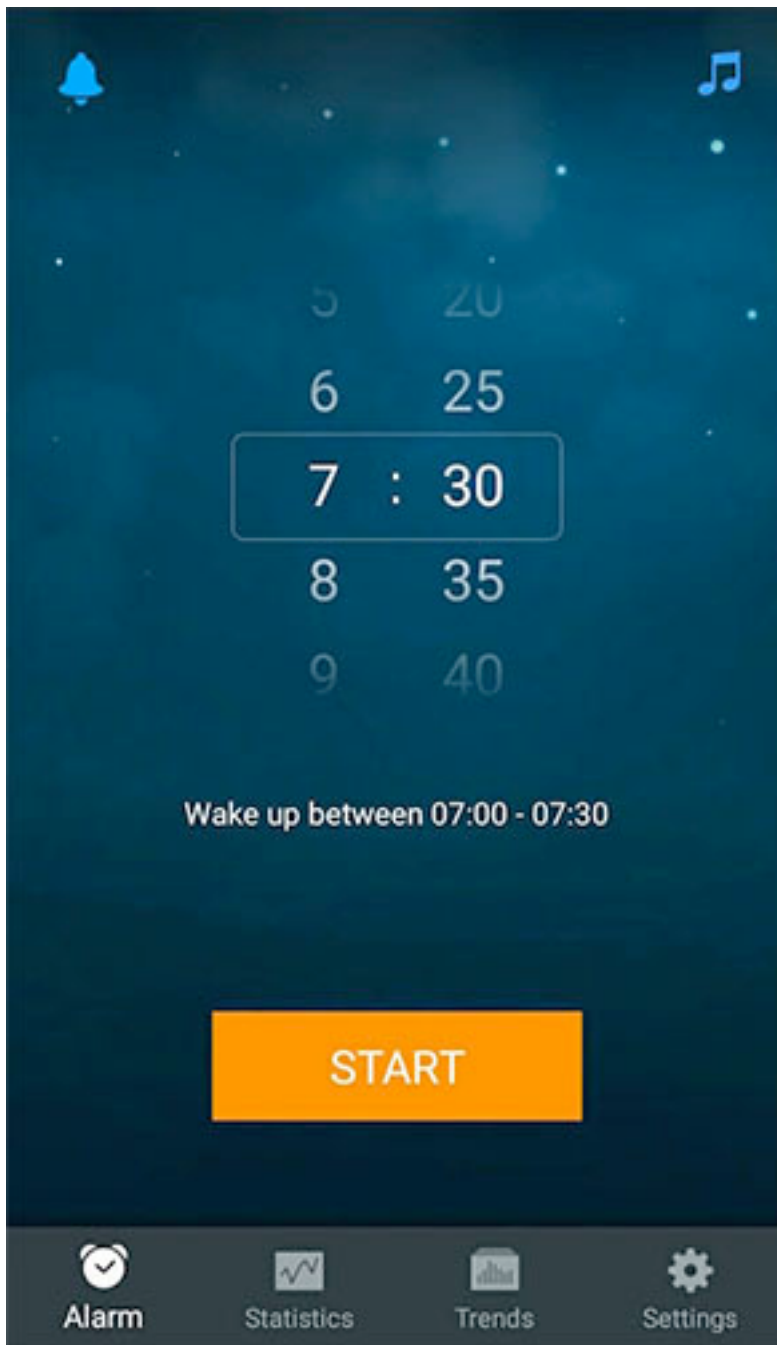Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 10 February 2018).
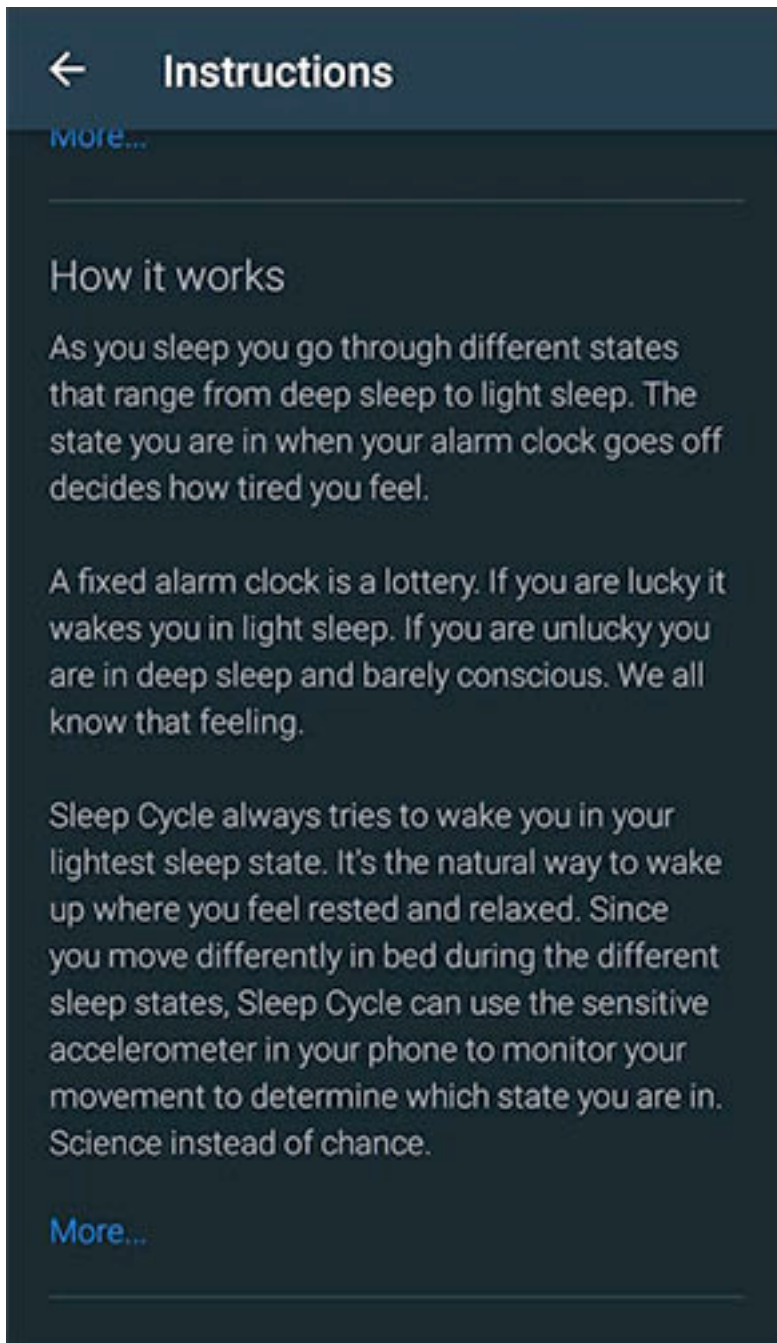
Fig.13 –*Sleep Cycle* instructions view (cont.).
Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 10 February 2018).

Fig.14 –*Sleep Cycle* introductory sequence.
Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 10 February 2018).

Fig.15 –*Sleep Cycle* sleep aid sounds list.
Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 10 February 2018).

Fig.16 –*Sleep Cycle* alarm set view.
Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 10 February 2018).
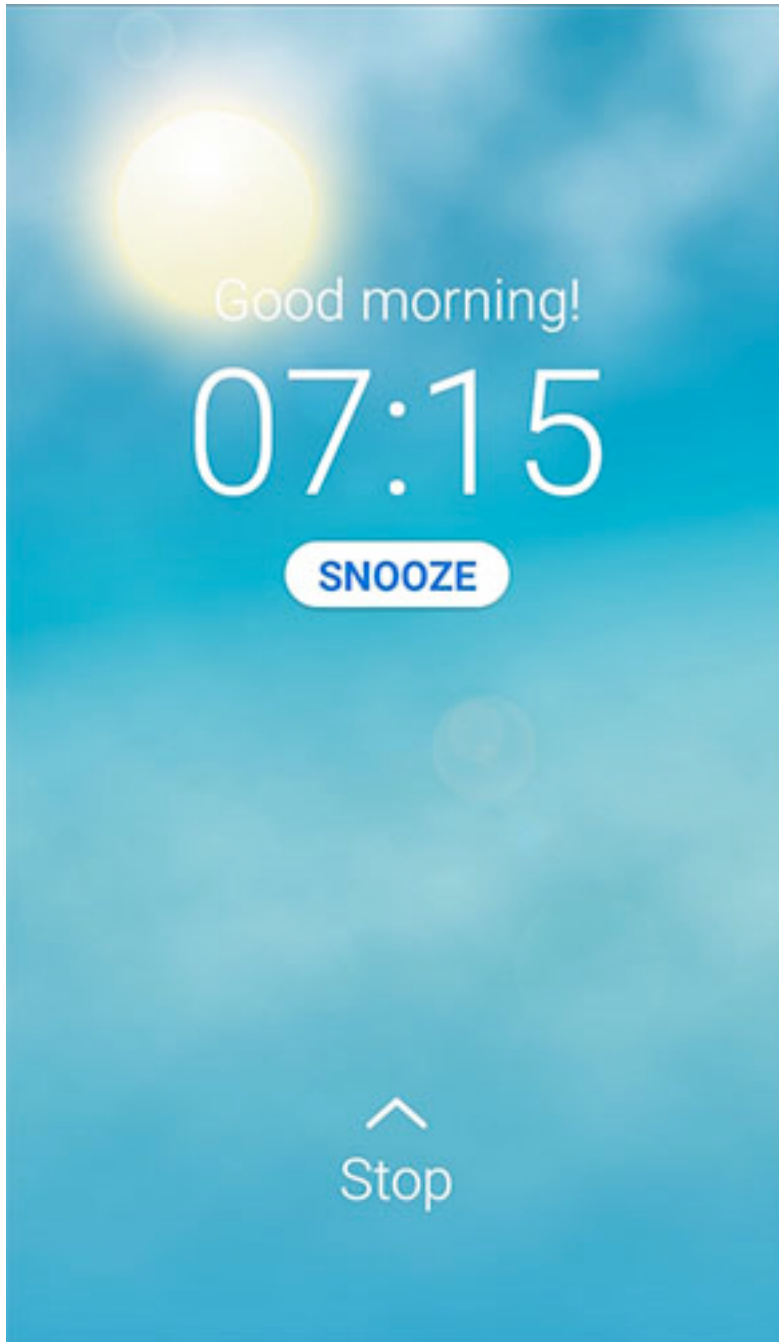
Fig.17 –*Sleep Cycle* alarm view.
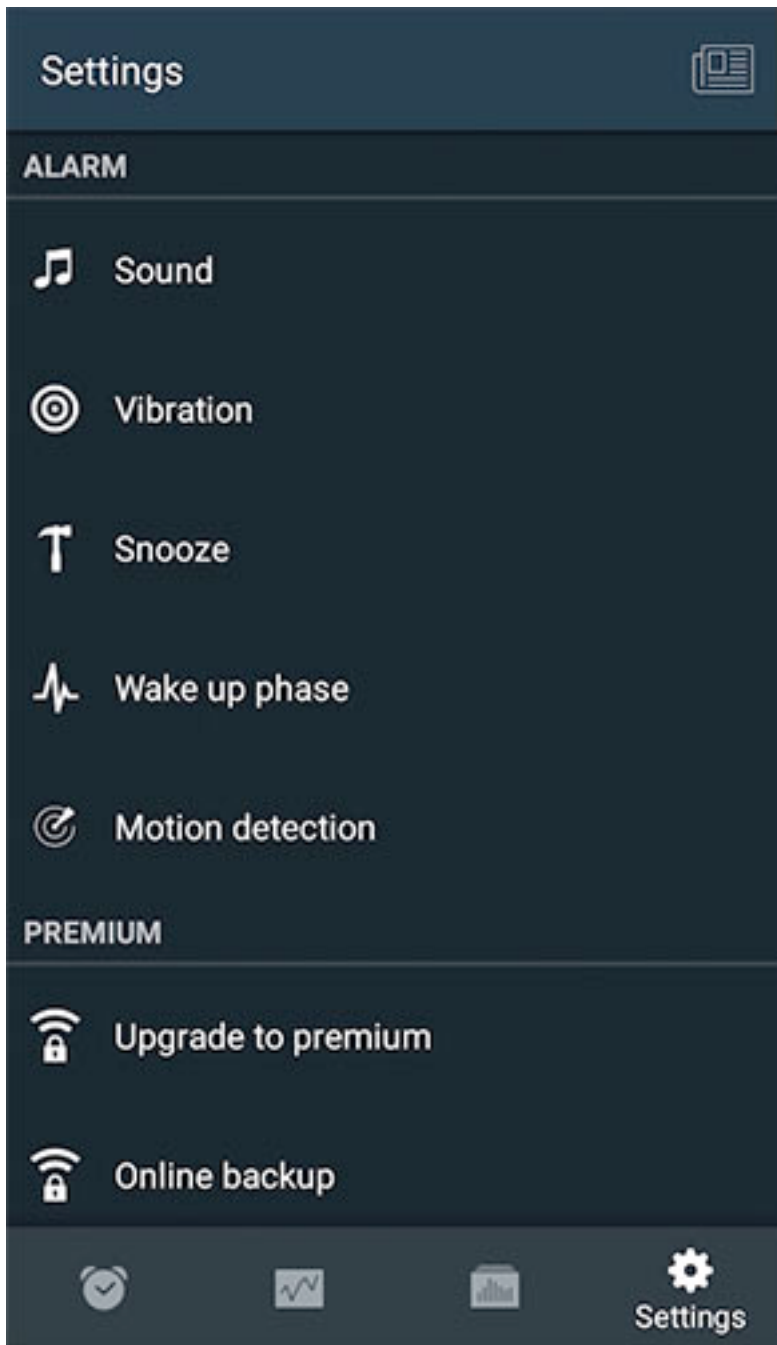Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 10 February 2018).

Fig.18 –*Sleep Cycle* settings view.
Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 10 February 2018).

Fig.19 –*Sleep Cycle* statistics view.
Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 15 April 2018).

The built-in accelerometer is
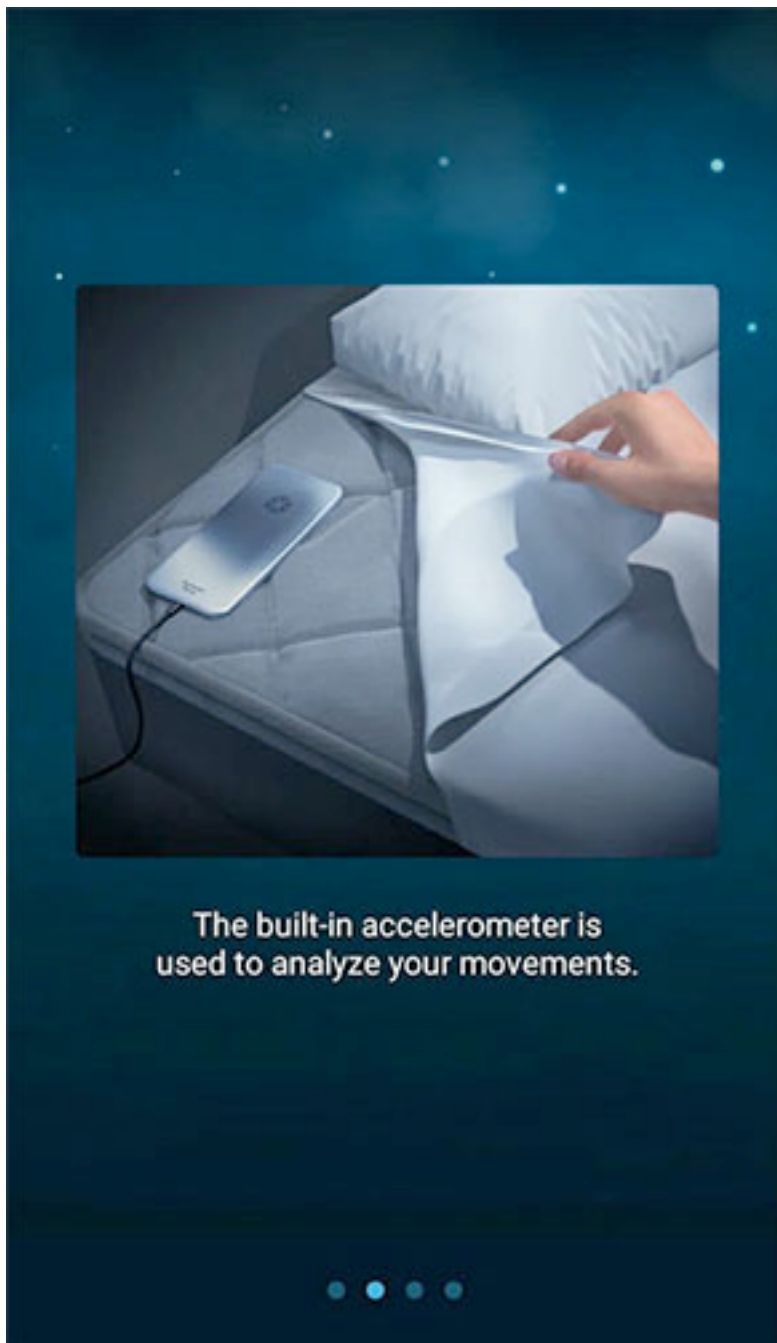used to analyze your movements.

Fig.20 –*Sleep Cycle* introductory sequence.
Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 10 February 2018).

Fig.21 –*Sleep Cycle* introductory sequence.
Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 10 February 2018).
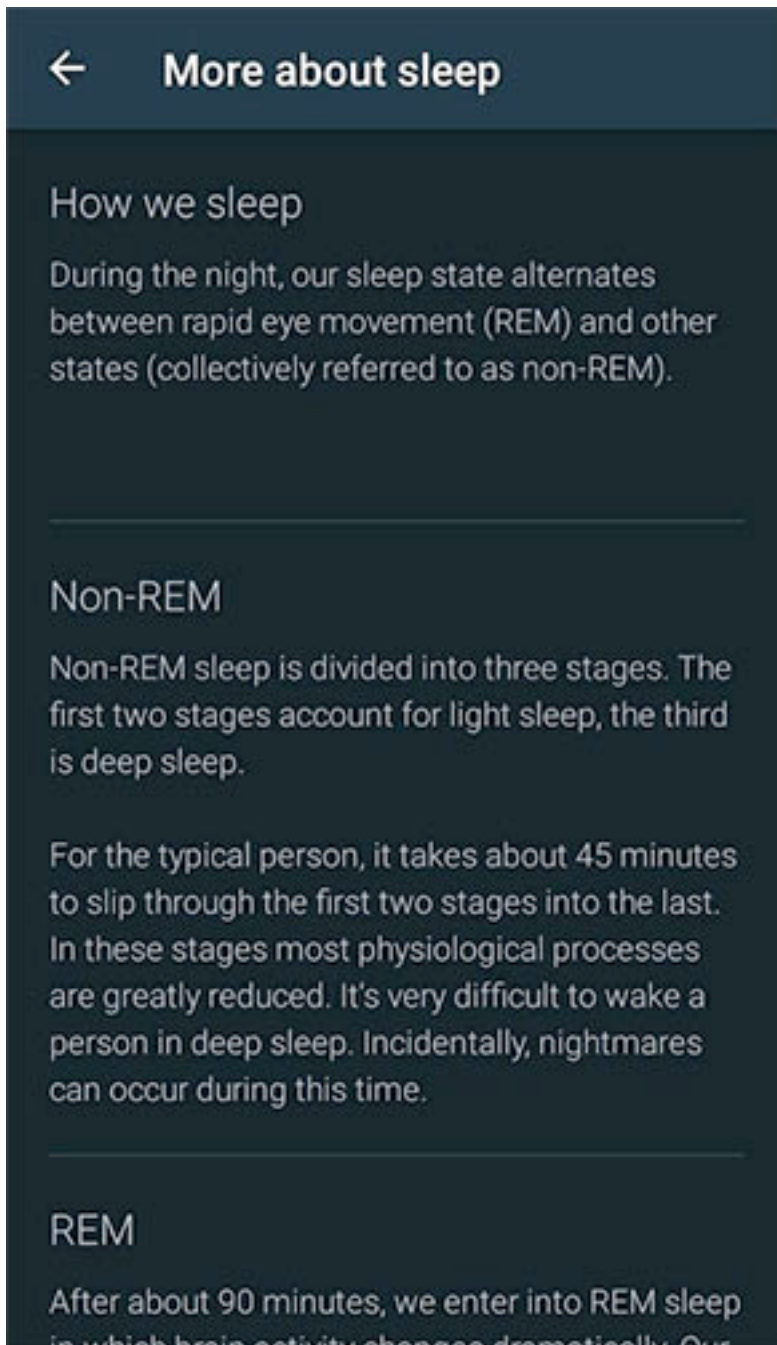
Fig.22 –*Sleep Cycle* information view (cont.).
Northcube*, Sleep Cycle,* v.1.5.1508, [Android app], 2018 (accessed 10 February 2018).

Bibliography
Primary Sources

Northcube AB, *Sleep Cycle Alarm Clock,* v.1.5.1508, [Android app], 2018, https://play.google.com/store/apps/details?id=com.northcube.sleepcycle (accessed 10 February 2018).

Shattered, Episode 1, Channel 4, 2004, [TV program].

Secondary Sources

Books

Baudrillard, J, *Simulacra and simulation*. Ann Arbor, University of Michigan Press, 1994.

Bishop, R, *Baudrillard Now: Current perspectives in Baudrillard studies*. Oxford, Polity Press, 2009.

Bourdieu, P, *Firing back: against the tyranny of the market 2*. London, Verso, 2003.

Brennan, T, *Globalization and its terrors: Daily life in the west*. New York, Routledge, 2003.

Crary, J, *24/7: late capitalism and the ends of sleep*. London, Verso, 2013.

Derickson, A, *Dangerously sleepy: overworked Americans and the cult of manly wakefulness*. Philadelphia, University of Pennsylvania Press, 2014.

Ellis, J, *Visible fictions: cinema, television, video*. London ; Boston, Routledge & Kegan Paul, 1982.

Foucault, M, *The birth of biopolitics: lectures at the Collège de France, 1978-79*. M Senellart (ed), trans. Graham Burchell, Michel Foucault's Lectures at the Collège de France, Paperback edition, New York, NY, Palgrave Macmillan, 2010.

Foucault, M, *The history of sexuality. Vol. 1: An introduction*. Reprint, London, Penguin Books, 1990.

Foucault, M, F Gros, F Ewald, & A Fontana, *The hermeneutics of the subject: lectures at the Collège de France, 1981-1982*. 1st ed, New York, Palgrave-Macmillan, 2005.

Freeman, C, *Entrepreneurial Selves: Neoliberal Respectability and the Making of a Caribbean Middle Class*. Durham, Duke University Press, 2014.

Greif, M, *Against Everything: Essays*. New York, Pantheon Books, 2016.

Gurvitch, G, *Spectrum of social time*. Paris, Springer, 1964.

Han, B-C, *Psychopolitics: neoliberalism and new technologies of power*. Futures, London ; New York, Verso, 2017.

Han, B-C, *The Burnout Society*. California, Stanford University Press, 2015.

Harvey, D, *The condition of postmodernity: an enquiry into the origins of cultural change*. Oxford [England] ; Cambridge, Mass., USA, Blackwell, 1989.

Lefebvre, H, *Critique of Everyday Life: the one-volume edition*. One-vol. ed, London, Verso, 2014.

Lorde, A, *A burst of light: and other essays*. Ixia Press edition, Mineola, New York, Ixia Press, 2017.

Lupton, D, *The quantified self: a sociology of self-tracking*. Cambridge, UK, Polity, 2016.

Marx, K, *The Grundrisse*. New York, Harper & Row, 1972.

Freeman, C, 'Neoliberalism: Embodying and Affecting Neoliberalism', F. Mascia-Lees (ed), *A companion to the anthropology of the body and embodiment*. Blackwell Companions to Anthropology, 13, Chichester, West Sussex, U.K. ; Malden, MA, Wiley-Blackwell, 2011. p.353-369.

Massey, DB, *Space, place, and gender*. Minneapolis, University of Minnesota Press, 1994.

May, J, & NJ Thrift (eds), *TimeSpace: geographies of temporality*. Critical Geographies, 13, London ; New York, Routledge, 2001.

Mitchell, WJT, *What do pictures want? The lives and loves of images*. Chicago, University of Chicago Press, 2010.

Murray, S, & L Ouellette, *Reality TV: remaking television culture*. 2nd ed, New York, New York University Press, 2009.

Ouellette, L, & J Hay, *Better living through reality TV: television and post-welfare citizenship*. Malden, MA, Blackwell Pub, 2008.

Penzin, A, 'Rex Exsomnis, Sleep and Subjectivity in Capitalist Modernity', Documenta & C Christov-Bakargiev (eds), *The Book of Books*, Documenta, 13, Ostfildern, Hatje Cantz, 2012. p.633-636.

Reiss, B, *Wild nights: how taming sleep created our restless world*. New York, Basic Books, 2017.

Rose, G, *Visual methodologies: an introduction to researching with visual materials*. 4th edition, London, SAGE Publications Ltd, 2016.

Thrift, NJ, *Knowing capitalism*. London, SAGE Publications, 2005.

Virilio, P, *Speed and politics: an essay on dromology*. New York, NY, USA, Columbia University, 1986.

Online newspaper articles

'Army abuse of Iraqi "appalling"', *BBC News*, 8 September 2011, http://www.bbc.com/news/uk-14825889 (accessed 6 May 2018).

'Big Brother: Your views', *BBC News*, 1 June 2003, http://news.bbc.co.uk/2/hi/entertainment/3051491.stm (accessed 27 April 2018).

'Double eviction for Big Brother', *BBC News*, 16 June 2003, http://news.bbc.co.uk/2/hi/entertainment/2994040.stm (accessed 27 April 2018).

'The Guardian view on sleep deprivation: who can afford forty winks?, *The Guardian*, 15 March 2018, http://www.theguardian.com/commentisfree/2018/mar/15/the-guardian-view-on-sleep-deprivation-who-can-afford-forty-winks (accessed 25 April 2018).

Brockes, E, 'Kim Kardashian: my life as a brand', *The Guardian*, 7 September 2012, http://www.theguardian.com/lifeandstyle/2012/sep/07/kim-kardashian-life-as-brand (accessed 14 May 2018).

Brook, S, 'Ofcom clears "cruel" sausage advert', *The Guardian*, 2 August 2004, http://www.theguardian.com/media/2004/aug/02/advertising1 (accessed 27 April 2018).

Cassidy, A, 'Clocking off: the companies introducing nap time to the workplace', *The Guardian*, 4 December 2017, http://www.theguardian.com/business-to-business/2017/dec/04/clocking-off-the-companies-introducing-nap-time-to-the-workplace (accessed 25 April 2018).

'Channel 4 defends sleepless show', 6 January 2004, http://news.bbc.co.uk/2/hi/entertainment/3373375.stm (accessed 27 April 2018).

Cooke, R, '"Sleep should be prescribed": what those late nights out could be costing you', *The Guardian*, 24 September 2017, http://www.theguardian.com/lifeandstyle/2017/sep/24/why-lack-of-sleep-health-worst-enemy-matthew-walker-why-we-sleep (accessed 25 April 2018).

Davis, N, 'Want a good night's sleep? Spend less time with your phone, say scientists', *The Guardian*, 9 November 2016, http://www.theguardian.com/lifeandstyle/2016/nov/09/want-a-good-nights-sleep-spend-less-time-with-your-phone-say-scientists (accessed 25 April 2018).

Heritage, S, 'After Eden: the other reality TV shows that nobody watched', *The Guardian*, 24 March 2017, http://www.theguardian.com/tv-and-radio/2017/mar/24/eden-other-reality-tv-shows-nobody-watched-shattered-space-cadets (accessed 27 April 2018).

Huffington, A, 'A Sleep Revolution Will Allow Us to Better Solve the World's Problems', *Huffington Post*, 16 December 2015, https://www.huffingtonpost.com/arianna-huffington/a-sleep-revolution-will-allow-us-to-better-solve-the-worlds-problems_b_8818656.html (accessed 25 April 2018).

Johnston, I, '"Catastrophic" lack of sleep in modern society is killing us, warns leading sleep scientist', *The Independent*, 24 September 2017, https://www.independent.co.uk/news/sleep-deprivation-epidemic-health-effects-tired-heart-disease-stroke-dementia-cancer-a7964156.html (accessed 25 April 2018).

Knapton, S, '"Thatcher gene" is key to needing less sleep', *The Telegraph*, 1 August 2014, https://www.telegraph.co.uk/news/science/science-news/11006181/Thatcher-gene-is-key-to-needing-less-sleep.html (accessed 25 April 2018).

MacAskill, E, & J Borger, 'Iraq war was illegal and breached UN charter, says Annan', *The Guardian*, 16 September 2004, http://www.theguardian.com/world/2004/sep/16/iraq.iraq (accessed 5 May 2018).

Mahdawi, A, 'How a good night's sleep became the ultimate status symbol', *The Guardian*, 1 June 2016, http://www.theguardian.com/lifeandstyle/2016/jun/01/sleep-habits-eight-hours-health-wellness-arianna-huffington (accessed 25 April 2018).

McKernan, B, 'Amid the carnage in Yemen, civilians also face consequences of the US war on terror', *The Independent*, 15 November 2017, http://www.independent.co.uk/news/world/middle-east/yemen-al-aqaeda-us-counter-terrorism-drones-navy-seal-raids-adhlan-marib-saudi-arabia-civil-war-a8057106.html (accessed 11 May 2018).

Schoenberg, N, 'Donald Trump's sleep-bragging highlights a broader issue', *Chicago Tribune*, 12 November 2015, http://www.chicagotribune.com/lifestyles/ct-sleep-bragging-donald-trump-20151112-story.html (accessed 25 April 2018).

Tryhorn, C, 'Big Brother in figures', *The Guardian*, 26 August 2009, http://www.theguardian.com/media/2009/aug/26/big-brother-in-figures (accessed 6 March 2018).

Online magazine articles

Friedersdorf, C, '"Every Person Is Afraid of the Drones": The Strikes' Effect on Life in Pakistan', *The Atlantic*, 2012, https://www.theatlantic.com/international/archive/2012/09/every-person-is-afraid-of-the-drones-the-strikes-effect-on-life-in-pakistan/262814/ (accessed 11 May 2018).

Jancer, M, 'The Gently Breathing Somnox Robot Cuddles You to Sleep', *Wired*, 2018, https://www.wired.com/story/somnox-sleep-robot/ (accessed 25 April 2018).

Melnick, M, 'Are You Among the "Sleepless Elite" — Or Just Sleep Deprived?', *Time*, 2011, http://healthland.time.com/2011/04/07/are-you-among-the-sleepless-elite-%E2%80%94-or-just-sleep-deprived/ (accessed 25 April 2018).

Nisen, CC, Max, '19 Successful People Who Barely Sleep', *Business Insider*, http://www.businessinsider.com/successful-people-who-barely-sleep-2012-9 (accessed 25 April 2018).

Tolentino, J, 'The Seductive Confinement of a Weighted Blanket in an Anxious Time', *The New Yorker*, 2018, https://www.newyorker.com/culture/on-and-off-the-avenue/the-seductive-confinement-of-a-weighted-blanket-in-an-anxious-time (accessed 25 April 2018).

Tozer, J, 'Which countries get the most sleep?', *1843 Magazine*, April 2018, https://www.1843magazine.com/data-graphic/what-the-numbers-say/which-countries-get-the-most-sleep (accessed 25 April 2018).

Reports

Centers for Disease Control and Prevention, *1 in 3 adults don't get enough sleep*. CDC, 2016, https://www.cdc.gov/media/releases/2016/p0215-enough-sleep.html (accessed 15 May 2018).

Centers for Disease Control and Prevention*, Data Briefs - Number 230 - January 2016*. CDC, January 2016, https://www.cdc.gov/nchs/data/databriefs/db230.htm (accessed 11 May 2018).

Goldman, D, *Investing in the growing sleep-health economy*. McKinsey & Company, August 2017, https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/investing-in-the-growing-sleep-health-economy (accessed 25 April 2018).

Hafner, M, M Stepanek, J Taylor, W Troxel, & C Stolk, *Why sleep matters - the economic costs of insufficient sleep: A cross-country comparative analysis*. RAND Corporation, 2016, http://www.rand.org/pubs/research_reports/RR1791.html (accessed 14 May 2018).

National Commission on Sleep Disorders Research (U.S.), *Wake Up America: A National Sleep Alert : Report of the National Commission on Sleep Disorders Research, Volume 1*. Washington, D.C., United States Department of Health and Human Services, 1993.

Journal articles

Baron, KG, S Abbott, N Jao, N Manalo, & R Mullen, 'Orthosomnia: Are Some Patients Taking the Quantified Self Too Far?' in *Journal of Clinical Sleep Medicine*, 13, 2017, 351–354.

Belli, J, 'Unhappy? There's an App for That', *Digital Culture & Society*, 2, 2016, http://www.degruyter.com/view/j/dcs.2016.2.issue-1/dcs-2016-0107/dcs-2016-0107.xml (accessed 6 May 2018).

Czeisler, CA, 'Perspective: Casting light on sleep deficiency', *Nature*, 497, 2013, S13.

Jameson, F, 'Future City', *New Left Review*, 2003.

Keyes, KM, J Maslowsky, A Hamilton, & J Schulenberg, 'The Great Sleep Recession: Changes in Sleep Duration Among US Adolescents, 1991-2012', *Pediatrics*, 135, 2015, p.460–468.

Lauderdale, DS, KL Knutson, LL Yan, PJ Rathouz, SB Hulley, S Sidney, et al., 'Objectively Measured Sleep Characteristics among Early-Middle-Aged Adults - The CARDIA Study', *American Journal of Epidemiology*, 164, 2006, p.5–16.

Mitchell, WJT, 'There Are No Visual Media', *Journal of Visual Culture*, 4, 2005, p.257–266.

Santhi, N, HC Thorne, DR van der Veen, S Johnsen, SL Mills, V Hommes, et al., 'The spectral composition of evening light and individual differences in the suppression of melatonin and delay of sleep in humans', *Journal of Pineal Research*, 53, 2012, p.47–59.

Stranges, S, W Tigbe, FX Gómez-Olivé, M Thorogood, & N-B Kandala, 'Sleep Problems: An Emerging Global Epidemic? Findings From the INDEPTH WHO-SAGE Study Among More Than 40,000 Older Adults From 8 Countries Across Africa and Asia', *Sleep*, 35, 2012, p.1173–1181.

Youngstedt, SD, EE Goff, AM Reynolds, DF Kripke, MR Irwin, RR Bootzin, et al., 'Has adult sleep duration declined over the last 50+ years?', *Sleep Medicine Reviews*, 28, 2016, p.69–85.

Other online sources

Channel 4, 'Factual Entertainment - Channel 4 - Info - Commissioning', http://www.channel4.com/info/commissioning/4producers/factualentertainment (accessed 27 April 2018).

Doctor NDTV, 'What Is Orthosomnia? All You Need To Know About It', *Doctor.ndtv.com*, 30 March 2018, https://doctor.ndtv.com/living-healthy/what-is-orthosomnia-all-you-need-to-know-about-it-1830621 (accessed 25 April 2018).

Hames, K, 'Ken Hames TV presenter', *Ken Hames professional website*, [website], https://www.kenhames.co.uk/ken-hames (accessed 6 May 2018).

'Mass culture - definition', *Oxford Reference*, [website], http://www.oxfordreference.com/view/10.1093/oi/authority.20110803100138730 (accessed 25 April 2018).

Ofcom, 'What is the watershed?', *Ofcom*, 10 May 2013, https://www.ofcom.org.uk/tv-radio-and-on-demand/advice-for-consumers/television/what-is-the-watershed (accessed 26 April 2018).

'Ofcom clears C4's sleep deprivation show Shattered', *Campaign Live*, 24 March 2004, https://www.campaignlive.co.uk/article/ofcom-clears-c4s-sleep-deprivation-show-shattered/205938 (accessed 27 April 2018).

'Reality TV - Definition', *Oxford Dictionaries*, [web page], https://en.oxforddictionaries.com/definition/reality_tv (accessed 25 April 2018).

Research, PM, 'Global Sleep Aids Market Will Reach US$80.8 Bn by 2020: Persistence Market Research', *GlobeNewswire News Room*, 31 July 2015, http://globenewswire.com/news-release/2015/07/31/756724/10144080/en/Global-Sleep-Aids-Market-Will-Reach-US-80-8-Bn-by-2020-Persistence-Market-Research.html (accessed 25 April 2018).

Schools, D, 'Exactly How Much Sleep Mark Zuckerberg, Jack Dorsey, and Other Successful Business Leaders Get', *Inc.com*, 6 March 2017, https://www.inc.com/dave-schools/exactly-how-much-sleep-mark-zuckerberg-jack-dorsey-and-other-successful-business.html (accessed 25 April 2018).

'Shattered - UKGameshows', *UKGameshows*, [website], http://www.ukgameshows.com/ukgs/Shattered (accessed 27 April 2018).

'Shattered on XTX User Profile - YouTube', *YouTube*, [website], https://www.youtube.com/user/MeesterWolf99/videos (accessed 27 April 2018).
'Sleep Cultures', *Sleep Cultures*, [website], http://www.sleepcultures.com/ (accessed 25 April 2018).

'Sleep Cycle alarm clock', *Sleep Cycle*, [website], https://www.sleepcycle.com/ (accessed 15 May 2018).

'Sleep Cycle alarm clock on the App Store', *App Store*, [website], https://itunes.apple.com/us/app/sleep-cycle-alarm-clock/id320606217?mt=8 (accessed 16 February 2018).

'Sleep School - Insomnia', *The Sleep School*, [website], https://thesleepschool.org/insomnia (accessed 25 April 2018).

'Software for autonomous drones', *Everdrone*, [website], https://www.everdrone.com/ (accessed 14 May 2018).

US Centers for Disease Control and Prevention, 'CDC - About Our Program - Sleep and Sleep Disorders', [website], 2017, https://www.cdc.gov/sleep/about_us.html (accessed 25 April 2018).

'User Review by Deb Pettit on Sleep Cycle alarm clock', *Google Play Store*, [website], 2018, https://play.google.com/store/apps/details?id=com.northcube.sleepcycle&hl=en&reviewId=gp%3AAOqpTOE0shHKskZcORy8oPXbCvN8OLDrf0poQeHkfOWd3lKwlx1lXCfmWUPVno_JODAI_4IbGwvq5WnUdLx2yw (accessed 14 May 2018).

Blog posts

Advanced Sleep Medicine Services, Inc., 'CDC Declares Sleep Disorders a Public Health Epidemic', *Advanced Sleep Medicine Services, Inc.*, [web blog], 2014, https://www.sleepdr.com/the-sleep-blog/cdc-declares-sleep-disorders-a-public-health-epidemic/ (accessed 25 April 2018).

Huffington, A, 'We're In the Middle of a Cultural Shift to Reclaim Sleep', *Medium*, [web blog], 26 March 2018, https://medium.com/thrive-global/were-in-the-middle-of-a-cultural-shift-to-reclaim-sleep-946a21a3a78d (accessed 25 April 2018).

Popova, M, 'Thomas Edison, Power-Napper: The Great Inventor on Sleep and Success', *Brain Pickings*, [web blog], 11 November 2013, https://www.brainpickings.org/2013/02/11/thomas-edison-on-sleep-and-success/ (accessed 25 April 2018).

Prospero, M, 'I Slept in Tom Brady's Bioceramic Pajamas', *Tom's Guide*, [web blog], 6 February 2017, https://www.tomsguide.com/us/tom-brady-pajamas,review-4163.html (accessed 25 April 2018).

Public Health England, 'Making the business case for sleep', *Public Health Matters*, [web blog], 18 January 2018, https://publichealthmatters.blog.gov.uk/2018/01/18/making-the-business-case-for-sleep/ (accessed 25 April 2018).

'QS & The Macroscope', *Antephase*, [web blog], http://antephase.com/themacroscope (accessed 6 May 2018).

'Quantified Self', *Antephase*, [web blog], http://antephase.com/quantifiedself (accessed 25 February 2018).

Wolf, G, & K Kelly, 'About the Quantified Self', *Quantified Self*, [web blog], 2010, http://quantifiedself.com/about/ (accessed 6 May 2018).

Online videos
Al Jazeera English, *The Stream - Sleep: the new commo*dity?, 3 May 2017,
https://www.youtube.com/watch?v=MkkDRkWlj1s (accessed 15 May 2018).