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Headphones, Auditory Violence and the Sonic Flooding of Corporeal Space

Jacob Kingsbury Downs
University of Sheffield

Abstract

In this article, I develop and redirect Julian Henriques's model of sonic dominance through examination of accounts of acoustic violence and torture involving headphones. Specifically, I show how auditory experience has been weaponized as an intracorporeal phenomenon, with headphones effecting a sense of sounds invading the interior phenomenological space of the head. By analysing reported cases of sonic violence and torture involving headphones through a composite theoretical lens drawn from the fields of music, sound and body studies, I argue that in saturating the head's perceived interior with sound, perpetrators of violence perform sonic dominance across two interrelated levels: the subjugation of interiorized auditory space via the notion of flooding, in which attention is directed towards the experience of the body as a vessel for sound; and the resulting manipulation of phenomenological head–mind linkages, with emphasis on the head as a 'space' for both sound and thought.

Keywords

head, headphones, interiority, sound, space, torture, violence

Over recent years, there has been an explosion of scholarly attention to the embodied reality of sonic experience in situations of violence, conflict and torture. Given its contemporaneity, some of the most developed and influential accounts of sonic violence have emerged in relation to the so-called War on Terror that followed the 9/11

Corresponding author: Jacob Kingsbury Downs. Email: jkdowns1@sheffield.ac.uk; jacobkingsburydowns@gmail.com
B&S Online Forum: https://www.theoryculturesociety.org

attacks on the United States, with attention paid variously to the use of personal audio technologies by military personnel as tools for sensory–affective regulation (Daughtry, 2014a, 2015; Gilman, 2016; Pieslak, 2009), the impact of sound on wartime and in-combat experience (Daughtry, 2015; Pieslak, 2009; Volcler, 2013), the sometimes inextricable relationship between sound and violence (Daughtry, 2014b; see also Goodman, 2010) and the calculated use of extremely loud music and sound as weapons of torture (Cheng, 2016; Cusick, 2008, 2013; Friedson, 2019; Goodman, 2010; Grant, 2013; Grüny, 2012; Heys, 2019; Hill, 2012; Papaeti, 2020; Pieslak, 2009; Szendy, 2012; Volcler, 2013). In the latter case, through analysis of details gathered from sources including victim testimonies and declassified government documents, researchers such as Suzanne Cusick (2008, 2013) have evidenced and analysed practices in which sound is used to overload victims' perceptual systems as part of broader schemes of interrogation-focused torture and human mal-treatment aimed at reducing prisoners' capacity for psychological control.

A range of scholars working to document cases of sonic violence and to theorize its political and phenomenological implications have foregrounded how extremely loud sound can be understood to engulf its victims in a material, vibrational mass, forcing the flesh of the body into ineluctable sympathy with weaponized sonic energy (Cusick, 2013; Daughtry, 2014b, 2015; Goodman, 2010; Heys, 2019; Hill, 2012; Volcler, 2013). Some have suggested that such instances of sonic violence may be viewed through the lens of Julian Henriques's (2003, 2010, 2011) concept of *sonic dominance*, in which the perceiving body is enveloped in the material power of loudspeaker-propagated sound, questioning the limits of the body and the integrity of individual subjectivity. In this article, I develop and redirect Henriques's model through examination of primary and secondary accounts of sonic violence and torture involving headphones. I show that in addition to sound's vibratory dissemination across and through the body constituting a material embodiment of power, sonic experience has also been weaponized as a more acutely intracorporeal phenomenon, with headphones effecting a sense of sound as inhabiting or invading the interior phenomenological space of the head. By analysing reported cases of sonic violence and torture involving headphones through a composite theoretical lens drawn

from work in the fields of music, sound and body studies, I suggest that headphones have been instrumentalized in situations of violence for their ability to redirect the axis of a perpetrator's power into the head's interior. I consider how, in forcibly appending technologies to the head and saturating its private spaces with sound, perpetrators of violence perform sonic dominance in two interrelated ways: through the subjugation of interiorized auditory space and the resulting manipulation of phenomenological head–mind linkages.

The main body of the article is structured in five parts. First, I provide an overview of Henriques's sonic dominance model and its wider theoretical resonances. Second, I survey the model's existing applications in and correspondences with scholarly accounts of sonic violence, noting the inextricable link forged between sound, space and power in such discussions. Third, identifying a lacuna in the empirical and theoretical literatures regarding the use of headphones in violence and torture, I posit the central research ambition of the article: to analyse reported experiences of headphone-mediated sonic violence through the theoretical lens of sonic dominance as a means of furthering existing understanding of the relationship between embodiment, sound, space, violence and technology. I consider an example of headphones' use in acts of sonic violence from a 1950s experimental trial (Cameron, 1957) in the light of broader research into sonic-spatial experience, especially via Gascia Ouzounian's (2006) conceptualization of the body's 'aural architectures' that emerge during headphone listening. In doing so, I identify two interrelated themes that emerge from the case, each of which relates to, yet manifestly diverges from, Henriques's original model: (1) the use of headphones as a means of sensory control and corporeal subjugation through the radical refocusing of auditory attention into the head's perceived interior and (2) the complex manipulation of the ostensible phenomenological relationship between the head as a resonant space and as the 'site' of thought. These strains form the basis of the remaining sections of the article, during which, in relation to experiences of headphone-mediated violence, I propose a modulation of the liquescent lexicon of sonic experience away from the language of *immersion* towards the phenomenological notion of auditory *flooding*, in which attention is directed towards the experience of the body as a vessel for sound as opposed to an object engulfed within a vibrational field. I do so by bringing Henriques's

and Ouzounian's insights into dialogue with Michel Foucault's (1979, 1980) model of disciplinary power and its effects on the body. What results is an exploration of the specific ways in which headphone-propagated sound may act as an instrument of power upon the body in situations of violence and torture, one that extends accounts of sonic violence, auditory experience and the technological mediation of corporeal space. In short, I argue that the use of headphones as a modality of violent sonic dominance results in a radical territorialization of embodied sonic space, concentrating sound's mediations of power into the perceptual spaces of the ears and head and subjugating the victim's bodily interior as a site of violence.

In terms of argument and methodology, I do not structure the following critical analysis of headphone use in violence and torture as a chronology of causes and effects, nor do I wish to claim that the account is exhaustive. While the instrumentalization of electronically reproduced music and sound is by no means the most prevalent form of contemporary violence and torture (Rejali, 2007: 366), and the use of headphones represents a narrower subset of such practices, it is nonetheless important to contribute to wider knowledge regarding any and all human maltreatment and to provide analysis of the evidence and the production of theoretical models to further our scholarly understanding of such phenomena. Activist, therapeutic and legal support remain the most crucial contributions for survivors of violence, torture and abuse; yet I stand with Cusick (2008, 2013) and others in the belief that close investigative analysis of the conditions of torture can also provide an important perspective on the brutality of specific contemporary practices, one that in turn supports and edifies the systems that underpin victim rehabilitation and justice. I consider headphone violence worthy of attention for the close relationship that emerges between sound, embodied space, violence and technology during the analysis of cases, some aspects of which are shared with other forms of sonic violence and others that appear peculiar to the practice. However, I do not wish to present the phenomenon as somehow more important or more 'deserving' of scholarly attention than other forms of human maltreatment, but instead as one of many cruel, inhuman practices circulating in the contemporary world – all of which, in my view, are worthy of critical scholarly attention.

The testimonies and accounts I explore below were chosen for their attention to the forcible use of headphones and the sound they propagate to violent ends, either as first- or third-person accounts. They are sourced from what is available in the public domain – from scholarly and journalistic investigations, historic experimental reports and activist documents – as well as from primary data collected through interviews with an ex-military service member from the United Kingdom.[1] There is no central 'corpus' of victim reports pertaining to sonic violence from which these cases are drawn, but instead a diffuse collection of testimonies distributed across a diverse range of sources. As such, the cases considered here represent a limited cross-section of reported experiences of violence, meaning that their analysis should not be considered part of a wider systematic review of contemporary punitive practices but as a specific case study of one mode of human maltreatment, evidenced through engagement with the sources available. Instances are neither limited to a narrow time frame (ranging from the 1950s to the 2000s) nor to a particular geographical location (spanning five continents). Testimonies vary in terms of their phenomenological detail, and my discussion draws from existing scholarship to support my analysis, paying particular attention to the embodied, spatial and material conditions of reported experience.

Sonic Dominance

Julian Henriques's (2003, 2010, 2011) concept of sonic dominance represents a key theoretical model in the literature exploring the relationships between sonic experience, embodiment, materiality and power. Rooted in fieldwork exploring Jamaican dancehall scenes centred around large sound systems that propagate loud music, Henriques documents the visceral, immersive experiences reported by ethnographic participants of the material sensation of sound and its social and cultural resonances, drawing attention to the 'sheer physical force, volume, weight and mass' of sound (Henriques, 2003: 451). For Henriques (2003: 452), sonic dominance denotes 'both a near over-load of sound and a super saturation of sound': an intense experience of sound being felt as 'a whole-body *vibrotactile* experience' (Henriques, 2010: 78; original emphasis), with the body resonating in sympathy with the material power of the music. He suggests

that the transductive principle of the body, its conversion of sonic energy into kinetic sensation, effects 'a process of transcending the dualities of form/content, pattern/substance, body/mind and matter/spirit' (2003: 469). Sound 'becomes a medium of thinking itself' (Henriques, 2011: 58), forcing an embodied, sensory reappraisal of the limits of thought and reason in terms of sonic mediation.

For the present purposes, I wish to foreground two themes from the model that Henriques posits, pertaining namely to sound's complex spatiality and to the effects of sonic dominance on thought and cognition. First, writing of the complex co-constitution of sound and space, Andrew Eisenberg (2015: 193) argues that sonic practices such as those associated with Jamaican dancehall culture form part of a broader aesthetic drive towards 'a direct, spaceless connection between a sound and its internal reception', one that 'envelops and invades the body, dissolving the subject'. For Eisenberg (2015: 194), such 'despatialized sonic experiences' actually work to 'reaffirm sound's fundamental spatiality', echoing Henriques's identification of the deconstructive power of acoustic space: that 'with sound it simply does not make sense to think of having an inside and an outside' (Henriques, 2003: 459) and that Euclidean spatial models must necessarily fall short of dancehall sound's enveloping and pervasive acoustic power (see also Born, 2013; Ouzounian, 2006). Here, sound appears at once to territorialize and despatialize experiences of embodiment, both surrounding and entering the body as a mediated yet phenomenologically immediate material force.

Second, Henriques (2003: 452) argues that dancehall sound 'allows us to block out rational processes' or at least demands 'a different way of understanding what rationality is' (Henriques, 2011: 121). Given that it foregrounds the primacy of embodiment, feeling and sensation beyond traditional accounts of the superiority of thought, mind and reason, the sonic dominance model may be seen to offer a sound-focused reconceptualization of the 'solidity of the subject', attending to 'the limits of reason and rationality in understanding how power and ideological processes work' (Blackman, 2012: ix, xi; see also Henriques, 2010). In other words, in its overwhelming, all-encompassing phenomenological force, sound 'can literally shake the monopoly of rationality as representation' in theories of subjectivity (Henriques, 2010: 83), at times enabling – or even forcing – the subordination of 'rational' thought.

Violence as/and Sonic Dominance

Henriques (2003: 453) acknowledges that 'the effects and affects of sonic dominance are not necessarily and predictably any one thing' and that the conditions of sonic dominance necessitate that 'sound itself becomes both a source and expression' of power – 'a kind of power that can be used for good or ill'. While his account of dancehall culture recognizes almost exclusively the positive, pleasurable aspects of sound's mediations of power, Henriques (2003: 451) also defines sonic dominance as 'hard, extreme and excessive', gesturing towards the potentially negative intensity of loud sound's phenomenological effects on the body.

The sonic dominance model has previously surfaced in other scholars' discussions of acoustic violence. Eisenberg (2015: 194) labels the instances of torture discussed by Cusick (2008, 2013) and others as cases in which perpetrators 'employ sonic dominance as a form of violence'. His rationale is coherent: in a manner akin to Henriques, Cusick (2013: 276) foregrounds how 'the sheer power of loud music's acoustical energy' forced 'prisoners' very bodies to vibrate sympathetically with their enemies' tunes'. Writing specifically of the case of 'X', a torture survivor with whom she spoke following his release from the notorious United States detention centre at Guantánamo Bay in Cuba, Cusick illustrates the manner in which the prisoner's persecutors used sound as a tool for domination, outlining the multiple vectors of power manifested in the sonic torture:

> His treatment was like a set of Chinese boxes of violation: the violation of interiority (his ability to concentrate on thoughts of his own choosing disrupted by sound) sat inside a violation of individuation (his body's inevitable sympathetic vibration to music he despised) . . . Music becomes not a metaphor for power, but power itself, literally – a vibrating presence of power that can deliver a miraculously ubiquitous battering to the sympathetically vibrating bones and skin of a man, beating him from within and without, while leaving no marks.[2] (Cusick, 2013: 285, 288)

In this way, Cusick's (2013: 278) identification of X's status as 'immersed in a vibrating world' of sound corresponds with elements of the sonic dominance model, as does her claim that music became 'power itself' during torture. In addition, X found that he was unable to focus on 'thoughts of his own choosing', which correlates to an

extent with Henriques's suggestion that modes of sonic dominance can serve 'to block out rational processes'. Certainly, there are glaring differences between the cases of X's torture and of the dancehall scenario: unlike the dancehall participants, there is no volition afforded to the tortured prisoner, with a catastrophic disparity in power and control forged between perpetrator and victim (see also Scarry, 1985); and the torturer's sound denies the prisoner access to thought in a forcible, calculated manner, far from the wilful submission to the dancehall's bodily pleasures documented in Henriques's ethnography. Yet in terms of how they foreground the material power of extreme sonic experience, there are certain correspondences between Cusick's and Henriques's accounts of sound and power.

In addition, other scholars of sonic violence have noted commonalities between the sonic dominance model and reported experiences of acoustic violence and torture. Steve Goodman (2010: 27–29; here, 27) devotes a chapter of his book on sonic warfare to Henriques's model, suggesting that, in addition to Jamaican sound-system practitioners, militaries also represent 'agents actively pursuing sound wars through the deployment of vibrational force'. Martin Daughtry (2014b), though not directly invoking Henriques's work, shares the latter's interest in the phenomenology of sonic 'size' and 'mass' in his theoretical account of sound's material, 'indexical' relationship to violence. And Toby Heys (2019: 90) applies Henriques's model to cases of sonic torture reported at Guantánamo Bay, writing that '[t]he sheer weight of the sonic mass pressuring the body in Guantánamo was generated precisely to control and possess the culturally compressed anatomy of the other', highlighting the manner by which a prisoner's body may be materially dominated by sound (see also Hill, 2012: 222).

The Resonant Chamber of the Head

In its various resonances with and applications in the studies considered above, Henriques's model of sonic dominance offers a theoretical access point for analyses of the embodied, spatial and material dynamics of loudspeaker torture. In what follows, I consider how the model may be applied to cases of human maltreatment involving a different family of sound technologies: headphones.[3] In existing work, there has been a dearth of scrutiny regarding acts of sonic

violence involving headphones; only cursory attention is paid to one such case in Cusick's work without significant engagement with the technology-specific conditions of maltreatment (Cusick, 2008: 2). While less common than those involving loudspeakers, there are various documented cases in which headphones have performed important roles in the subjection of individuals to violent abuse. Moreover, as I argue below, there is something specific about sonic violence involving headphones – not wholly different from other modalities of sonic dominance considered above but involving certain distinctive and phenomenologically significant manipulations of sonic-spatial experience.

To engage with the specific characteristics of headphone-mediated violence and torture and to highlight correspondences with and differences from practices involving loudspeakers, I begin with an example taken from a historical experimental study published in the journal *Psychiatric Quarterly* (Cameron, 1957). The author of the study, Donald Ewen Cameron, was a psychiatrist working at McGill University in Montreal, Canada.[4] Cameron's unethical experimentation on unconsenting psychoneurotic and schizophrenic patients led to his crystallization of 'psychic driving' (Cameron, 1956, 1957), a system of techniques designed to change the way its victim would process certain thoughts. A write-up of some of Cameron's findings in popular Canadian periodical *Weekend Magazine* heralds the research as revelatory of the 'beneficial' applications of 'brain-washing' (Moore, 1955).

The psychic-driving process began with Cameron recording a psychotherapeutic session with one of his patients. Next, he would edit a 20- to 30-second extract from the session, one specifically chosen to probe the more difficult areas of their disclosure, which he termed the 'dynamic implant' (Cameron, 1957). In the initial stages of the project, Cameron would play this extract to the patient for 15 minutes per day over loudspeakers (Cameron, 1957), but later revisions to the experimental method necessitated that the extract be played for up to 16 hours each day over 21 days of treatment (McCoy, 2006: 43–44; Otterman, 2007: 46), sometimes in combination with a concoction of psychoactive drugs (de Young, 2015). What is crucial for the present purposes is that following the earlier stages of the psychic-driving trials, Cameron worked to revise his method to ensure optimal impact after noticing that several patients appeared

unmoved by the sonic stimulus. He adopted headphones to channel the sound directly into the heads of those subjected to his treatment.[5] The methodological changes proved effective, as Cameron notes in a paper detailing his results:

> the sound should be conducted to the patient's ears through headphones. This causes the patient to experience the driving with much greater impact, the more particularly since he frequently describes it *as being like a voice within his head*. For instance, one patient said: 'I've heard enough. It goes right through my head'. Another reported: 'It's too close; it's horrible; I hear all the stuttering'. (Cameron, 1957: 706; added emphasis)

In reporting his decision to edit the psychic-driving treatment to incorporate headphones, Cameron makes specific reference to certain sonic-spatial effects afforded by the technology. First, as his patients described, sound relayed by headphones can appear to inhabit the interior space of the head. In turn, as Mary de Young (2015: 276) writes, Cameron's use of headphones ensured that the taped extracts 'became tantamount to voices in the head', effecting a haunting, distressing experience for the psychiatric patients. Moreover, Cameron interprets the 'greater impact' as the result of the focus required by the patients on the sound, apparently because, through relaying sound at such close proximity to the auditory system without interaural crosstalk, headphones may cause the auditory system to privilege the sounds they present, as they often appear more prominent to the user – 'too close', as one patient reported.

The experience of in-head sound localization reported by Cameron's patients corresponds closely with the phenomenological characteristics of headphone listening described throughout the past century and a half of headphone-related auditory study (see Blauert, 1983: 132–37; Ouzounian, 2021: 34–35).[6] Gascia Ouzounian (2006) writes of the 'aural architectures' of the body that emerge during practices such as headphone listening, specifically examining the ways in which sound artist Bernhard Leitner explores the interior spaces of the head in his 2003 sound-sculpture series *KOPFRÄUME* (*HEADSCAPES*). Leitner describes the collection as 'works specifically created for the interior of the head' that 'can only be experienced with earphones'. Presenting the head as a 'globe-like container', Leitner manipulates the stereo profiles of recorded and

synthetic sounds, causing them to appear to move around a bounded area inside the head, aiming for listeners to 'contemplat[e] the interior, however unfathomable it may be' (all Leitner, cited in Ouzounian, 2006: 70, 77). Through headphone use, artists are able to create 'worlds that exist not only in their imagination but in the heads of their audience as well' (Stankievech, 2007: 57); and, by extension, so too are psychiatrists.

Second, Cameron's central ambition with the psychic-driving method was to reshape the cognitive processes of his patients. The use of headphones in the pursuit of his medical goals appears to confront the notion of 'brainwashing' with a certain degree of literality.[7] Cameron's ambition to change the thought processes of his patients through the use of headphones may be interpreted as a manner of doubly 'getting inside the head' of his victims – both sonically and cognitively. Ouzounian (2006: 77) writes that during her 'situated listening' to *KOPFRÄUME*, she noticed that the sound from the headphones served to sonify 'the private, secret chambers of the head, previously reserved for the mysterious working of the soul and the all-too-familiar sounds of the inner voice' – evidence, she suggests, that 'physical and metaphysical spaces, or real and imagined ones, can co-exist at the intersection of sound, space and the body'. In other words, as she listened to the works, the sound mediated by Ouzounian's headphones appeared to tread a fragile phenomenological boundary between the head as a (physical) container for sounds and the head as a (metaphysical) 'space' for thoughts. This interdimensional blurring of the head's interior was 'unsettling' in its realism: 'As the sound space merged with my interior head space, I would forget that I was listening to a sculpture and not merely the sounds of my own subconscious, amplified by the sparse but complex, stealthy sequences of sound' (Ouzounian, 2006: 77). For Ouzounian, then, notions of sound-space and thought-space may be experienced as merging during focused headphone listening.

Viewing the reports of Cameron's patients in the light of Ouzounian's autoethnographic account, we can understand more about the cruelty of the psychic-driving treatment. As well as aiming to focus his patients' attention on the repeated sound clip, Cameron also manipulated the head's potential phenomenological status as thought-space through sound. Ouzounian's experience of the headphone sound as at times appearing to be that of her 'own

subconscious' may have been intensified for the patients, whose long stretches of listening may have caused them to experience a similarly gradual elision of physical and metaphysical space. If so, the sound's flooding of the head's perceived interior could enact an invasion of the 'space' of thought. In such a light, there appears to be a polysemic rationale to Cameron's choice of 'dynamic implant' as a term for the sound clip: a reference perhaps both to the forcible insertion of the clip's message into the 'mind' of the patient and to its apparent sonic-spatial 'implanting' into the head's interior via headphones.

The sonic-spatial effects described here – the subjugation of the head's interior through sound and the resulting impact on the assumed 'location' of thought – correlate with, yet diverge from, the bipartite thematic digest of Henriques's sonic dominance model posited earlier in the article. First, instead of engulfing the whole body in sound, headphones produced a sense of sonic interiority for the victims of Cameron's experiment, filling the auditory space of the head. In describing these experiences, we may move away from the liquescent language of *immersion* towards the notion of *flooding* – the body as a vessel for sound, not as an object submerged within a larger sound-filled container. This is the clearest divergence from Henriques's loudspeaker-focused model. Yet both sonic presentations (via loudspeakers and via headphones) effect a sensory prioritization of the acoustic material; as Henriques (2003: 452) writes, sonic dominance necessitates that 'sound has the near monopoly of attention', its power saturating the sensorium and pulling focus. Moreover, for Henriques (2003: 451), sonic dominance occurs when 'sound pervades, or even invades the body', further suggesting the applicability of an adapted version of the model to situations involving headphones. Second, as adduced above, that sonic dominance works 'to block out rational processes' has clear resonances with Cameron's use of headphones, especially when viewed through the lens of Ouzounian's autoethnographic account of headphones' demarcation of the head as a hybrid physical–metaphysical space.

In sum, the Cameron case probes certain specific sonic-spatial effects afforded by headphones in their use as tools of violence. These themes correlate with those drawn out of Henriques's model above yet differ in notable ways. Based on this case, it is possible to hypothesize an adapted model of sonic dominance that

accommodates the specific ways in which headphone-mediated sound enacts power on the bodies of victims of violence:

1. Unlike the full-body immersion of sound associated with Henriques's model and its reception in existing studies of sonic torture, violent forms of sonic dominance mediated by headphones make calculated use of the spatial phenomenon of in-head localization, flooding the head's phenomenological interior with sound.
2. The invasion of intracorporeal space with sound enacts a mode of specific, complex dominance over the workings of thought and reason, corresponding with, though adding greater spatial specificity to, Henriques's view of sound's affective power.

In what remains of this article, I illustrate and develop this skeleton model further through consideration of other cases in which headphones have been instrumentalized as sonic weapons. As part of my extension and redirection of Henriques's model, I draw from Ouzounian's work considered above, as well as bringing these sound-specific approaches into direct dialogue with Michel Foucault's (1979, 1980) influential work on the body, power and discipline.[8] What emerges is an adapted application of sonic dominance specific to headphone violence, one that focuses not on the sympathetic vibration of the body as a whole but on the experience of interiorized sound-space.

Auditory Flooding and the Subjugation of Corporeal Space

In its July 1975 newsletter, the international non-governmental organization Amnesty International outlined a report written by French lawyers investigating human rights abuses in Argentina. Fascism had been growing in Argentina since the 1920s, and an acceleration in political repression via terrorist groups had burgeoned throughout the 1960s and 1970s, later coalescing into a civic–military dictatorship between 1976 and 1983 during the time of the so-called Dirty War (Finchelstein, 2014: 4). In May 1975, in the months preceding the military junta's seizure of power, the lawyers had travelled to Buenos Aires to hear reports that right-wing extremist groups were subjecting prisoners to various forms of torture during interrogation, including electric shock treatment and simulated executions, as well as

'allegations that the police ha[d] made some detainees were [*sic*] stereophonic headphones through which high frequency signals were passed in order to break down their resistance without leaving any visible marks' (*Amnesty International Newsletter*, 1975: 4). The torture formed part of what Amnesty International described as a 'climate of terror' spreading throughout Argentina, a country in which the control of power had been fraught on ideological grounds for decades.

Amnesty International's decision to focus on the visibly untraceable impacts of sonic torture in its report corresponds with a broader categorization of such means as modes of 'no-touch torture'.[9] Yet for the Argentine terrorists, sound was nonetheless used as a material force with which to 'break down' the resistance of those tortured through its invasion of interior space with high-frequency noise. As with the electric shock treatments used in conjunction with the sound, perpetrators of headphone torture manifest disciplinary power in material terms upon and through the body, forcing prisoners to submit to interrogation. Akin to Foucault's reading of the disciplinary logic of the prison, such physical manifestations of sonic dominance force us to acknowledge sound's 'very materiality as an instrument and vector of power' (Foucault, 1979: 30). In headphone torture, this 'vector' is forced into the body's interior.

The focus on high-frequency sounds in the Argentine case is shared with an instance of headphone torture reported in early 1970s colonial Rhodesia (*Guardian*, 1971). One of many instances of police brutality under Ian Smith's regime (Mungazi, 1981; see also Kirk, 1975), the article details the torture of 20-year-old Themba Musa, who explained to a reporter for the *Guardian* that he had been arrested on suspicion of organizing a strike effort and that officers in Bulawayo's Mzilikazi police station had used headphones extensively during his interrogation. He stated:

> We got there about 9.40 am. They led me to a room that looked like a recording studio and measured about 9ft. by 12ft. They then strapped me into what looked like a dentist's chair by pinioning my arms and clamped headphones to my ears. The two detectives went to a section of the room behind a glass panel and they started to question me through the earphones. (Musa, quoted in *Guardian*, 1971: 1)

Musa's refusal to answer questions led to the administering of 'a high buzzing sound into the earphones' that 'was increased in pitch and volume' over the course of approximately half an hour until he began to sweat and eventually lost consciousness (*Guardian*, 1971: 1). His brutal treatment involved the calculated use of headphones in two distinct ways: through the amplification of officers' voices during questioning and the punitive conduction of noise when they were dissatisfied with his response. The resultant sound filled Musa's head to such an extent that it led him to faint – a visceral, sonic mediation of colonial violence and oppression.[10]

Such examples share characteristics with the earlier case of Yuri Nosenko, a colonel from the Soviet Committee for State Security (KGB) who had defected to the United States in the early 1960s. The CIA refused to believe that Nosenko was a genuine defector and aimed to have him confess to being a Soviet double agent. After almost two years of captivity and 'enhanced interrogation' from 1964, the torture methods used on Nosenko were ordered to become harsher. In conjunction with forced starvation and the administration of hallucinogenic drugs, on one occasion Nosenko had headphones 'strapped to his head and a barrage of sounds played for twenty-three hours' (Otterman, 2007: 58). Michael Otterman's choice to describe the headphone torture as a sonic 'barrage' is potent here, foregrounding the materiality of the treatment. For Foucault (1980: 57–58), 'nothing is more material, physical, corporal than the exercise of power'; it is a felt, embodied reality. While it was information that the CIA sought, Nosenko's body was the 'object and target of power' (Foucault, 1979: 136); and in the case of torture via headphones, his bodily interior became the site of violence. Considered in this light, we may observe that the CIA used headphones as part of a 'machinery of power that explores [the body], breaks it down and rearranges it' (Foucault, 1979: 138).[11]

Such a subjugation of corporeal space can also be found in human rights abuse committed in a detention centre at Temara near Rabat, Morocco, in the early stages of the 'War on Terror'. In 2002, Ethiopian national and UK resident Benyam Mohammad (al-Habashi) was captured and interned in Pakistan for passport violation and on suspicion of being an 'enemy combatant' before being transported to Morocco. There, as well as enduring countless beatings, the pouring of hot liquid onto his skin and repeated lacerations to his genitals

with a variety of sharp objects, Mohammad was subjected to sonic torture:

> They [Mohammad's captors] cuffed me and put earphones on my head. They played hip-hop and rock music, very loud. I remember they played Meat Loaf and Aerosmith over and over. A couple of days later they did the same thing. Same music. (Mohammad, quoted in Khan, 2008: 271)
>
> I could not take the headphones off as I was cuffed. I had to sleep with the music on and even pray with it. (Mohammad, quoted in Gutteridge, 2006: n.p.)

For Mohammad, his captors' appendage of headphones to his ears and head became a tangible embodiment of power, control and dominance. Like a parasite, the technology could not be removed, trapping his tortured body and flooding it with loud sound. Throughout sleep and prayer, his head was filled with the constant, unavoidable sound of his captors' music. In Mohammad's case, sonic dominance is combined with forced immobility and other forms of pain to effect 'a relation of strict subjection' for the body (Foucault, 1979: 138), consuming the prisoner both within and without.

As in cases of sonic dominance enacted by means of loudspeaker, there was no escape for Mohammad during his treatment by the CIA: sound possessed an all-encompassing immanence. Yet unlike the loudspeaker cases, the sonic dominance that he experienced was an interior-focused mediation of power, infiltrating and subjugating his corporeal space. In such cases of headphone torture, the phenomenological space of the body becomes a flooded space, drowned in sound from the inside, as though invaded by an externally produced stimulus that swells within the body.

'Brainwashing'? Interrogating the Phenomenology of Sonic Head–Mind Interlinking

Included in Mohammad's testimony is a chilling quotation from one of his interrogators outlining the ambitions of his torture: 'They weren't really interrogations, more like training me what to say. The interrogator told me what was going on. "We're going to change your brain", he said' (Mohammad, quoted in Khan, 2008: 271). At the core of the violence enacted on Mohammad was an aim to perform a forcible deconstruction of his ability to process rational thought.

Of loudspeaker torture reported during the 'War on Terror', William Cheng (2016: 73) writes that 'when music is extremely loud, repetitive, and imposed, it . . . pricks the skin, pummels the bone, penetrates the viscera, and unhinges the mind . . . , rendering prisoners unable to hear themselves think'. Applying this analysis to headphone violence, the relationship between the resonant chamber of the head and the 'space' of thought to which Ouzounian gestured above takes on the weight of power and control. Thought-space becomes overwhelmed by sound, and in doing so sound obstructs a victim's ability to think.

Mohammad's case relates in multiple ways to the treatment of Mamdouh Habib, an Egyptian-born Australian national who was subjected to similar abuses after his internment in Pakistan in October 2001. Transferred by Karachi police to Egypt, he was beaten and subjected to electric shock treatment and sonic torture. Following six months there, he was sent via a United States facility in Afghanistan to Guantánamo Bay. Following his release in 2005, Habib described his treatment in an interview:

> They put headphones on me, then put on the music very loud. . . . They were trying to make me crazy . . . They try to take your mind away from you. . . . Even today, when I hear any loud noise, I get disturbed. (Habib, quoted in Peisner, 2006: n.p.)

Habib describes not only the violence of his torture but its lasting effects beyond captivity, suggesting the formation of traumatic phenomenological sequelae related to certain sounds (see Gray, 2001). He appears to link his experiences of music torture with the apparent ambitions of his interrogators, who – as with Mohammad – aimed to leave him in such a state of distress that he was unable to access or control his own thoughts. Habib's treatment corresponds with Cusick's description of X's trauma considered above: that the music served to thwart his 'ability to concentrate on thoughts of his own choosing'. Yet, in the cases of both Mohammad and Habib, there is a different sonic-spatial reality experienced between body and sound to that reported by Cusick, one in which – as with Cameron's patients – sound appears to go through the head, that site at which, recalling Ouzounian, 'physical and metaphysical spaces' may be said to coexist. The relationship between embodied space and subjectivity

is therefore violently foregrounded in the use of headphones for torture.

For one ex-service member with whom I spoke, the relationship between the resonant space of the head and his access to cognitive freedom also played a significant role during two days of simulated interrogation undertaken as part of his recruitment into the British Army. The man, who wished to be called Max, was formerly connected with the UK's Special Air Service (SAS). At the end of his five-month training and selection course, Max completed what is known as the 'resistance to interrogation' (RTI or R2I) component of the trials, which corresponded in content to the United States' Survive, Evade, Resist, Extract (SERE) training (see also Leigh, 2004). Max's situation was far different from other cases explored here: he was free to leave the simulated interrogation whenever he wanted, though doing so would negate his chances of joining the Army. Nonetheless, he was made to sign a waiver regarding his human rights before the course commenced, setting the tone for his treatment during the simulation (Max, interview with author, 24 April 2019). When, together with a 'hood' (sack), an object was forced over his ears at the start of the session, he assumed it was a pair of noise-isolating ear muffs: they relayed no sound for an extended period of time, instead only depriving him of auditory stimulus. Of that period, he remarked that he was able to stay in control of his thoughts by using techniques he had learned during training, including undertaking simple cognitive tasks such as reliving memories of routes taken on familiar journeys. These techniques worked for Max in the earlier stages of his simulated interrogation when there was no sound played through the headphones. However, hours into the course, sound started blaring through the 'ear muffs' without warning:

> You've got sound coming through your ears for what feels like days, but obviously it ain't. It was probably twenty minutes. But the body's getting [exhausted]. They change the way you are so quickly. And what's happening to your body. (Max, interview with author, 24 April 2019)

During the sonic treatment, Max found that he was no longer able to complete his mental distraction tasks. More than that, he found it harder to ignore the pain permeating his body:

> They had this one [stress position] where you sat with your legs crossed, and you had your arms out vertical. And every time your arms dropped down, they whacked you with a stick, and you had to put them back up vertical again. But, in the end, you kind of almost get used to the pain. It kind of goes away. But when the sound started, the pain started. . . . When my arms were out and there was no sound, I don't remember getting beaten too much. But when the sound started, I remember getting hit more. I probably got hit the same amount either way. (Max, interview with author, 24 April 2019)

When the headphones relayed no sound, Max was able to focus into his thoughts and remove himself temporarily from his immanent physical pain. But when the sound commenced, he found that it 'prevent[ed] him from focusing his mind away from the physical pain, making that pain more vivid' (Cusick, 2013: 283). Relayed into his head, the sound was unavoidable, sharing the space of retreat he had designated for his cognitive exercises and expelling them and their efficacy.

A final example can be drawn from third-person testimony regarding torture practices in China. In their list of 'common' torture methods reported to be used in the People's Republic of China, the International Society for Human Rights (n.d.: n.p.) list the following: 'Over a long period of time the bound victim is exposed to extremely loud music or propaganda tapes via headphones'. Available evidence is sparse regarding China's contemporary torture practices: often it is only through Chinese nationals who have defected from the ruling Communist Party (CCP) to become activists in the West that testimonies are heard. One example arises in a speech given in San Diego, California, in December 2007, in which Sa Geng, a follower of the state-proscribed religious practice Falun Dafa (also Falun Gong), describes his wife's persecution under the CCP from 1999 until her murder in 2003. Geng explains that following years of abuse, his wife's death resulted from a torture technique known as 'strapped clothes', in which the victim's limbs are violently contorted and fastened in a modified straitjacket, after which they are hung up for at least 24 hours, using the body's weight against itself. In his speech, Geng noted that

> According to witnesses of this torture, the victims are forced to wear these strait jackets, then their arms are tied up by the straps behind

> their back. Next, their arms are pulled to the front over their shoulders, and then tightly tied together with their legs. To make them suffer even more, the police will force them to wear headphones broadcasting defamatory programs about Falun Dafa. With their mouths covered, they are then hung from a widow frame [*sic*]. (Geng, transcribed in *Falun Dafa Info Center*, 2017: n.p.)

In Geng's example, the use of the headphone-mediated propaganda recordings is clearly ancillary to the horrifying physical treatment of the victims' bodies, but one that Geng notes intensifies their suffering. The propagandistic sound becomes attentionally unavoidable for the victims, invading their broken, incarcerated bodies and removing the possibility to retreat into thought. The resultant state is one in which a victim's ability to imagine themselves out of the situation is demolished, leaving in its wake the persistent noise of the propaganda, trying as it does to enter into the fabric of their consciousness. In the head's interior, the material and the immaterial collide violently through sound.

Resonant here are Foucault's ideas regarding the relationship between the disciplined body and its subjectivity. Foucault (1979: 136) foregrounds the dual 'anatomico-metaphysical register' of the body as a site of analysis. The body is composed of both material and phantasmal spaces (Connor, 2011); and the very 'spaces' of discipline are 'mixed' in Foucault's conceptualization, weaving between the 'real' and the 'ideal' (Foucault, 1979: 148; see also Foucault, 1986), the overtly material and the decidedly less so. There are clear resonances here with Ouzounian's figuration of the sonified head as a physical–metaphysical hybrid space, not divided into conventional categories of 'body' and 'mind'. In headphone violence, then, the head is precisely the site at which notions of material and phantasmal, real and ideal, dissolve into mediated entanglements of sound, pain, and dominance.

Conclusion

In this article, I have drawn sonic dominance and its applications to the study of acoustic violence into dialogue with other theoretical strains, both sonic (Ouzounian, 2006) and otherwise (Foucault, 1979, 1980), to produce a composite theoretical prism through which to consider instances of violence involving headphone technologies. I

have argued in favour of the wider fecundity of sonic dominance as a conceptual model, suggesting certain perspectival modifications to elucidate its theoretical resonance in the study of headphone violence. Beyond the broader understanding of sound as an *immersive* material, I have suggested that in relation to experiences involving headphones, we might better conceive of sound as something that *floods* interior perceptual space. Here, we retain linguistic attention to the 'liquid flow' of sound (Henriques, 2010: 70) but reshape our understanding of the relationship between body and sound: the body is figured as a space *inhabited by* sound as opposed to an object *submerged in* a wider field of sonic energy. Thinking in terms of violence, headphones may therefore afford a perpetrator access to the body's internal phenomenological space, invading the head and subverting its traditional status as a private zone of experience. This has the potential to impact the formation of the individual subject in complex ways, manipulating the status of the head as both sound-space and thought-space to malign ends.

Headphone violence enacts a paradoxical dissolution of the subject. A victim's body is starkly delimited as a site of violation, with attention directed towards a spatial interior sonified into focus. Yet, at the same time, the metaphysical space of subjectivity – the ability of a victim to recoil into thought and dissociate from the perceptual reality of the situation – is negated, suggesting the collapse of the traditional root of the subject that is encased in received notions of 'mind' or 'soul'. The subject is individuated, yet its capacity for subjectivity becomes disintegrated, thwarted by sound's mediations of power and dominance. Here, as elsewhere, the workings of violence elucidate how systems of punishment, discipline and dominance – sonic or otherwise – are predicated on the body's status as an object of manipulation and control, twisting notions of the embodied self into new, often uncharted configurations.

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ORCID iD

Jacob Kingsbury Downs https://orcid.org/0000-0002-2327-5854

Notes

1. My interviews with the ex-service member were conducted in 2019 as part of a broader research project exploring the phenomenology of headphone use. The project received ethical approval from the University of Sheffield's Department of Music (ref. no. 013045).
2. Cusick's description of music torture as 'leaving no marks' is a reference to its common description as a mode of 'no-touch torture'. In the light of Henriques's model of sonic dominance, there is a distinct irony to this colloquial refrain: loud sound *does* touch the body, and its impact on the body leaves marks of trauma that go on 'echoing in flesh' (Cheng, 2016: 75). As we would with a physical weapon, we should regard sound like any other tool in a perpetrator's arsenal: one that has lasting material effects on the body and that mediates power in violent ways.
3. By 'headphones', I refer to varieties of binaural, non-manual over-, on- and in-ear technologies that mediate sound directly towards the human auditory system (see Blauert, 1983: 31).
4. Cameron's work is often associated in contemporary accounts with the United States' Central Intelligence Agency (CIA), namely the so-called mind-control research conducted in its name during the 1950s (Klein, 2007: 25–48; McCoy, 2006: 42–45). The study

considered here likely predates his funding by the CIA: some suggest he was funded from 1958 onwards (e.g. Rejali, 2007: 370), while others trace the CIA's involvement in his research back to early 1957 (e.g. McCoy, 2006: 43–44). Cameron's later work was funded through 'a modest investment' (Rejali, 2007: 141) from the CIA as part of a wider course of research commenced in response to reports that Chinese forces, backed by the Soviets, had successfully driven American soldiers captured in Korea to become sympathetic towards their cause (see McCoy, 2006: 21–59). In fear that the communists had managed to 'crack the code of human consciousness' (McCoy, 2006: 21), the CIA, together with the United Kingdom's Ministry of Defence and Canada's Department of National Defence, devised a project codenamed MKULTRA: a covert series of scientific trials aimed at probing the foundations of human psychological command, reportedly commissioned for the sole purpose of training allied soldiers to withstand future 'brainwashing' attempts from their military opponents. See, among other works, Alfred McCoy's (2006) extensive critique of the suggestion that MKULTRA was wholly defence-oriented, especially regarding the research's crystallization into a manual of recommendations for 'enhanced interrogation' techniques in the 1960s (see also note 11).

5. McCoy describes the technology used by Cameron as 'a football helmet' (McCoy, 2006: 44), though Cameron refers specifically to headphones in his report (Cameron, 1957: 706).
6. While far beyond the scope of the present work, there is room to nuance the scholarly account of in-head sound localization through closer attention to the phenomenology of sonic-spatial experience. Both historic (see e.g. Ihde, 2007: 187) and contemporary (Downs, 2021) evidence shows that listeners may perceive headphone-mediated sound as inside and/or surrounding their heads, sometimes simultaneously, raising questions about how neatly to conceptualize the spatiality of interiorized auditory experience. Despite these potential avenues, I adopt the prevailing model of in-head localization in its simplest, if reductive, form for the purposes of the present article.
7. Incidentally, the verb 'to brainwash' is said to have entered the English language from the Mandarin colloquial expression *xǐ nǎo* (literally 'wash brain') in the 1950s (*OED*). Credit is often directed towards the journalist Edward Hunter, who disseminated the term most influentially in his *Brain-Washing in Red China* (Hunter, 1951) (see also note 4).
8. I am grateful to an anonymous reviewer for their suggestion of building Foucauldian analysis into the article.

9. For a brief phenomenological critique of this term, see note 2.
10. The role of torture in colonial violence and oppression has been considered in important work by many authors including Stephen Morton (2008: 184), who brings the debates towards the present day to argue that the 'War on Terror' ultimately represents 'a defence of imperial sovereignty' (see also Le Sueur, 2001; Maran, 1989; Rao, 2001).
11. Given the CIA's connection to Cameron's research in the late 1950s via MKULTRA (see note 4) and the sheer amount of continuous time that Nosenko was subjected to headphone torture, one may be tempted to think that the CIA's treatment here exhibits traces of influence from Cameron's 'psychic-driving' experiments considered above. Such an observation would resonate, for example, with Otterman's (2007: 58) decision to mention the headphone 'method pioneered by Dr Cameron in Montreal' in his discussion of Nosenko's case. The work of other MKULTRA scientists was crystallized into the *KUBARK Counterintelligence Interrogation Manual* published in 1963, in which – among a host of other 'techniques' – sensory deprivation (see Rejali, 2007: 376) and overload (see Cheng, 2016: 74–75) were encouraged. However, as Darius Rejali (2007: 376) notes, Cameron's research is never mentioned in the *KUBARK* manual. In addition, Rejali observes that the *KUBARK* manual offers no 'formal instruction in applying a torture technique' (2007: 429), that 'there is little empirical evidence of a science of torture' in general (2007: 447) and ultimately that torture 'is a craft, not a science' (2007: 440). Nonetheless, the suggestion that the 'scientific' *KUBARK* manual has had an important impact on the US's global torture practices is shared by a host of writers exploring CIA torture more broadly (e.g. Dunne, 2013; Gardell, 2008; Klein, 2007; McCoy, 2006; Otterman, 2007) and sonic torture specifically (e.g. Cheng, 2016; Cusick, 2008, 2013; Papaeti, 2020). Considered in the light of Rejali's argument against the notion of 'scientific' torture (see also Welch, 2009), a degree of critical scepticism might best be adopted when considering attestations of *KUBARK*'s impact on contemporary torture, and especially any suggestion that Cameron's research carried wider influence. Moreover, I stand with Rejali's (2007: 379) suggestion that there is a need to attend 'to the actual devices [of torture] or their effects', something that he deems is 'ironically' lacking in many 'histories of an American science of torture'. I am grateful to an anonymous reviewer for their suggestion of Rejali's work.

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Jacob Kingsbury Downs is completing a doctorate in the Department of Music at the University of Sheffield. His project, funded by the United Kingdom's Arts and Humanities Research Council via WRoCAH, considers headphone listening through a phenomenological lens, with emphasis on individuals' experiences of embodied space, mediated social relations and the materiality of technology. He holds bachelor's and master's degrees from the University of Oxford.