Article

Non-lethal weapons and the sensory repression of dissent in democracies

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Abstract

This article examines the use of 'non-lethal' weapons (NLWs) by liberal democracies to govern dissent in non-war contexts. We argue that NLWs can enable sensorial governance, specifically through *sensory repression* of dissent. Although accented as non-lethal, NLWs are better conceived of as what we term 'Weapons of Sensory Repression' (WSRs). From tear gas to sound cannons to skunk bombs and more, WSRs target the human senses – visual, auditory, olfactory, proprioceptive – and impose debility not death, thus enabling the use of technologies of repression against dissenting collective assemblies at lower threat thresholds than conventional weapons, arguably disincentivizing alternatives to repression. Since law enforcement in liberal democracies is not explicitly linked to political control and such democracies derive legitimacy from responsiveness to public opinion, it is worth highlighting what WSRs make im/possible in this regard. Empirically, WSRs create and confirm subordinate citizenship in liberal democracies for those who are already de facto lacking in certain rights. Emphasizing that liberal democracies renew themselves through challenges involving mass mobilization, we suggest that the employment of these weapons transforms problems of political change into problems of technological crowd management by dehumanizing those that propose alternative logics for dominant economic, nationalist or racial orders.

Keywords

Democracy, dissent, protest, non-lethal weapons, repression, sensory

> Presently he began to feel the effects of the war atmosphere – a blistering sweat, a sensation that his eyeballs were about to crack like hot stones. A burning roar filled his ears.
>
> (Crane, 2008 [1895]: 31)

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Yet war cannot be fully apprehended unless it is studied from people's physical, emotional, and social experiences, not only down from 'high politics' places that sweep blood, tears, and laughter away, or assign those things to some other field.

(Sylvester, 2013: 2)

Heraclitus of Ephesus said that 'the major problem of human society is to combine that degree of liberty without which law is tyranny, with that degree of law without which liberty becomes license'.

(Traynor, 2005: 23fn.)

Introduction

Against the backdrop of growing authoritarianism, the basic principles underlying representative liberal democratic political systems are important to preserve and sustain. In fact, liberal democracy is at its lowest level in 25 years whereas the number of dictatorships is rising (V-Dem Institute, 2022). A key such principle in need of safeguarding is the ability of democratic citizens to express dissent through collective assembly. Historically, this modality of political expression in liberal democracies has been crucial in widening the reach of political and economic rights, especially for those who are most marginalized. There are examples, throughout history and in the contemporary present, of societies renewing themselves through mass mobilizations, which are a form of democratic speech in their very existence. However, the last century has seen a proliferating use of various technologies against protesting assemblies, and these technologies have circulated between democratic and authoritarian systems, often deriving validation from their use by liberal democracies. In recent decades, such technologies have blurred distinctions between war with the enemy and protest policing as war against the democratic citizen. This is especially the case for 'non-lethal' weapons (NLWs) that are increasingly deployed against domestic civilian populations across regime types.

In contrast to lethal weapons (for example, guns), these NLWs range from tear gas to sound cannons to rubber bullets to smell bombs to pellet guns and more. All weapons (lethal and non-lethal) cause pain, which is a somatic sensation. We are not focusing on pain per se but rather on the blunting of human senses and the sensory apparatus through which NLWs can both incapacitate and repress. The aim of this article is to foreground and analyse the use of NLWs by liberal democracies against citizens in non-war situations. We argue that this is important for two reasons. First, because our analysis squarely focuses on a hitherto assumed but not explicitly delineated aspect of how such weapons work – that is, they are weapons that work through *sensory repression*. Unlike conventional weapons that are designed to inflict death, NLWs are intended to inflict debility specifically through targeting the human senses – visual, auditory, olfactory, proprioceptive. When NLWs are used, they act on the political human subject in a specific way through affecting a particular sensory ability; for instance, the ability to see, or hear or smell. They have been designated as 'non-lethal' weapons, but we put forward that they are better conceived of as what we term 'weapons of sensory repression' (WSRs). The repression is sensory because the means of achieving repression is to target ability to act by immobilizing, making it hard to see, hear, move, etc. This involves sensory incapacitation – visual disorientation, hearing disruption, proprioceptive incapacitation and so on. Viewing NLWs as WSRs allows us to ask the extent to which the use of sensory repression and sensorial governance might be acceptable in liberal democracies against citizens in non-war situations. The accent on the senses, and the sensory, puts the materiality of the citizen as a living human body, and the significance of the visual forensics of collective assembly in advancing social movements, at the centre of political contestation.

Second, and relatedly, although the use of WSRs (aka NLWs) is increasingly legitimized in liberal democracies to govern dissent in a variety of non-war situations, their use relies upon an implicit understanding of what constitutes a 'threat' that can be addressed with a specific kind of weapon. Unlike the usage of lethal weapons, WSRs with their lower likelihood of causing fatalities (as opposed to significant debility) are amenable to be deployed at lesser threat thresholds, and, quite importantly from an empirical point of view, brought into action routinely against those protesting citizens who are already previously marginalized (for example, Black Lives Matter protestors in the USA). In this way, they arguably disincentivize alternatives to repression, and may create and confirm subordinate citizenship in liberal democracies for those who are already de facto lacking in certain rights and may face greater challenges in making demands via collective protests. Since law enforcement in liberal democracies is not explicitly linked to political control and democracies derive legitimacy from responsiveness to public opinion, it is worth highlighting what WSRs make im/possible in this regard.

Considering the above, this article examines how sensory repression contributes to the regulation of dissent and protest in liberal democracies. We argue that WSRs can transform the nature of the political subject, erode democratic politics and reveal the often hidden, but ever-present, violence of liberal democracies. Therefore, WSRs are not technologies of crowd control but rather of *political control*. Through drawing attention to sensory repression as a frame for understanding NLW use, our approach makes an original contribution by focusing specifically on the sensory nature of such technologies and their use by liberal democracies in non-war situations. We emphasize that the sensory aspect is important because it is distinctly a *human* body that discerns and experiences a political domain that it acts in. Sensory capacities are an ineradicable component of how and why people make sense of their belonging, commitments and grievances. Therefore, when the capacity of the human body, and of the gathered bodies in the protest assembly, to be able to breathe, hear, see or smell is violated, then an assault on the body politic of that democracy is already underway. As avenues for political participation, mobilization and renewal become increasingly limited, an analysis of the role of WSRs in the shifting rationalities and techniques used to govern contemporary liberal democracies is not only important but urgent.

The structure of the article is as follows: we begin by assessing the diverse and complex ways in which sensory targeting undermines a liberal democracy. Through exploring the connexions between democracy, threat, dissent and repression, it becomes clear that this system of government routinely participates in the violent exercise of repression. Serving as the key framework for the article, the utilization of WSRs hinders the ability of domestic civilians to dissent – a vital component in the maintenance of a healthy democracy. Subsequently, we move to the shifting landscape of WSRs which explores how the 'non-lethality' of these weapons is premised upon a given context and history. Our consideration of WSR use picks up on many concerns that have existed alongside the pioneering and rationalization of such technology. Lastly, the final section provides an original compilation of various means of sensory targeting that exist in the public domain and are used against protesting assemblies using examples from old and new democracies from the Global North and South. A variety of technologies and contexts are analysed to show how WSRs target different senses in order to incapacitate, as well as to highlight how these weapons operate as a vehicle for political control. The imposition of authority, particularly against those already marginalized, through the specifically *sensory* aspect of repression in liberal democracies deserves attention.

Democracy and dissent/threat/repression

Before specifically turning to the use of sensory, 'non-lethal' weapons in liberal democratic states, here we situate our discussion on democracies in the relevant literatures from political science and

social movement studies to develop our main argument. What this tells us is the following: liberal democracies have a historically complex relationship with violence; threat and repression are not straightforwardly correlated or even sequenced in an intuitive manner (the greater the threat, the more the repression) since the very idea of what constitutes a threat is not independent of how it is constructed (Booth, 2007; Campbell, 1998; Doty, 1998); likewise, whether repression motivates further dissent or obstructs it is empirically unclear. What we can ascertain is that although dissent is necessary in democracies, liberal democracies often resort not to less but to 'smart' repression and policing of dissent. Further, understanding the role of WSRs is important since the literatures on repression and dissent do not concern themselves with the nature of the technology, the materiality of the weapon or its specific sensory action. We explicate these points below.

Scholars such as Schwarzmantel (2010: 217) acknowledge that democracy and violence are not mutually exclusive as 'the democratic state, like any other, uses violence when necessary to maintain itself in existence and to resist those violent movements that reject democratic processes'. However, from the French Revolution to the American Civil War, various liberal democracies have been constituted through violence (see Moore, 1968; Ross, 2004). Additionally, there is a long history of democratic systems inflicting harm upon racialized/othered bodies within their own territorial borders, ranging from Black Americans to Kashmiris. The perpetration of brutality against colonized populations by several democratic states must also be considered when assessing the historical dynamic between democracy and violence. The support for deployment of poisoned gas in Mandatory Iraq, the establishment of concentration camps in South Africa during the Boer Wars, and the torture of Algerians throughout the Algerian War of Independence are a few of many examples which demonstrate that the functioning of democracies is deeply intertwined with the use of violent force (Kaul, 2010: 116).

In 1930, during the civil disobedience protests abroad, Sir John Thompson, the British Chief Commissioner of Delhi, wrote: 'we want something as effective as fire action in its immediate object, but less serious . . . something which will not kill, will give no crown of martyrdom and yet reach a larger proportion of the offending crowd' (Shoul, 2008: 179). The colonial use of WSRs such as tear gas was only the start of technologies that would continue to create the façade of humane deployment by democracies, even as further technological revolutions made it possible for sensory weapons to limit changes to powerful status quos. For instance, Rappert (1999: 743) refers to the deployment of new technologies as instrumental in crushing the miners' strike of 1984–1985 in the UK and in tracking the activities of peace activists, trade unionists and others. By eliminating collective mobilizations for greater social justice, WSRs may foreclose an important set of available pathways for improving social outcomes.

The purpose of policing (both colonial and metropolitan) has been to carry out the law, but also to manage and discipline 'an expanding range of social ills and their associated populations so that they are removed from, or at least do not threaten, social and political order' (Laffey and Nadarajah, 2016: 115). The way policing operates today in liberal democratic states did not develop in insulation from this. Policing tactics, practices and weapons have been shaped by a series of reciprocal, interdependent interactions between what are considered the core and the periphery (Hönke and Müller, 2016). For instance, 'conflicts such as those in Somalia served as testing beds for the latest innovations in less-than-lethal technology. Ultrasound generators, acoustic disabling systems, aqueous foam barriers, and thermal guns all promise new options for security forces' (Rappert, 1999: 743). Another example includes the invention and trial of several new pieces of equipment and strategies by France in Algeria from 1954 to 1962 during the nation's War of Independence. Many of these developments would later be employed on French streets to violently suppress the widespread unrest of May 1968 (Provenzano, 2019).

An oft-repeated 'domestic democratic peace hypothesis' about the relationship of repression with democracies held that liberal democratic regimes exercise less repression and tolerate certain thresholds of dissident behaviour (Davenport, 2007a, *passim*). Although democracies can be expected to rely less on repression since they have channels for the expression of dissent (see Carey, 2010), Regan and Henderson (2002) highlight the complexity of the relationship between democracy and repression. The inference that there is a strong negative linear relationship between democracy and political repression may obfuscate the role of the nature of demands that are faced by any state, regardless of regime type (see Gartner and Reagan, 1996).

That the level of threat will determine the level of repression intuitively seems persuasive since destabilizing threats will make repression more probable. However, in contrast to the quantitative literature, a more constructivist position can be sensitive to the insight that the perception of threat is not independent of the way it is represented. Boykoff (2007: 305) highlights how repression of dissent in democracies 'is usually couched in the syntax of exceptionality and carried out on the terrain of crisis'. Dissent, Boykoff posits, is often framed negatively by the state and mass media.

Although the literature on repression (see Boykoff, 2006, 2007; Davenport and Inman, 2012; Earl, 2003, 2011; Randle, 1981) posits deterrence, incapacitation and surveillance as the three basic goals of repression (Oliver, 2008), there are broad or narrow framings of what is meant by repression (see Regan and Henderson, 2002; Ritter and Conrad, 2016; Tilly, 1978). Nonetheless, we can discern an underlying agreement that 'political repression refers to the repressive actions directed at individuals and groups based on their current or potential participation in noninstitutional efforts for social, cultural, or political change' (Earl, 2011: 262). We follow Peterson and Wahlström (2015: 634) in conceptualizing repression as 'the governance of domestic dissent'. They argue that repression is the policing of contention and thus a 'dispersed mechanism *for* the governance of the dominant political and economic order' (Peterson and Wahlström, 2015: 1; emphasis added). This broad framing of repression in terms of governing dissent is suitable because whether repression encourages dissent or inhibits it is far from clear. As Anisin (2016: 895) succinctly formulates, 'hitherto, researchers have established nearly every type of relationship between repression and dissent', continuing, 'nevertheless inconclusiveness still remains in regard to the question of whether state repression increases or decreases political mobilisation'.

Since democratic societies require legitimacy for repressive action, 'the state must come up with subtler ways to maintain social control' (Boykoff, 2007: 303). Repression as the governance of domestic dissent in democracies can therefore take diverse forms such as via the establishment of legal and infrastructural prohibitions, or the selective enforcement of these. Mitchell and Staeheli (2005: 811) provide examples of legal geographies within liberal democracies through the corralling of protesters, urban landscapes with fences, checkpoints, 'no-protest' zones and the establishment of official 'protest pens'. Similarly, the protest permit system plays an important role, since it determines the conditions for visibility of dissident voices (who can assemble to protest, where, for how long and when). Political exclusion can be generated not just by banning protest but also by banning it in specific public places while allowing it elsewhere: 'The politics of public space is thus also the politics of location: *where* voices are silenced makes a huge difference as to *which* voices are heard' (Mitchell and Staeheli, 2005: 798, emphasis original). In fine, democracies have a complicated relationship with violence and repression as the governing and policing of dissent in democracies has often been understood through a focus on aims, processes, measurements and outcomes in relation to protest.

Set against this, we conceptually innovate by spotlighting the role of technologies, specifically material technologies of the NLWs as WSRs – the physical devices used particularly for sensory targeting – as a democratic practice of repression. Kurtz and Smithey (2018: 185, 207) use the term

'smart' repression to designate 'the use of tactics by authorities that are delicately crafted to demobilise movements while mitigating or eliminating a backfire effect'. Smart repression is not obviously violent and is motivated by greater consciousness of the ways physical force repression can backfire. WSRs offer a paradigmatic example of smart repression.

A focus on technologies of sensory repression is warranted because technologies have psychological, cultural and political effects. Sclove (1995: 4–5) indexes how newspapers, public interest groups, corporate leaders and government bodies often end up asking only a few basic questions in relation to technology: whether it is workable, what the costs and benefits are, how they are distributed, associated environmental and health/safety risks, and implications for national security. Important as these questions are, they do not cover the terrain of a much more fundamental question: 'What would be the impact on our desired form of society if individuals, or the community, were to adopt one set of technologies rather than another?' (Sclove, 1995: 6–7).

As we explain in the following sections, WSRs incapacitate the *senses* of those whom they target and dilute the *sense* of justice in broader populations that become immune to such use. In other words, the routinization and reproduction of such practices of political control via crowd control, over time, rationalizes their use upon certain kinds of citizens in liberal democracies, simultaneously creating and confirming their subordinate citizenship. When WSRs are used, they often reveal the hierarchies of history, whether in terms of the 'Third World colonized' or the expendable precariat within a liberal democracy.

The shifting landscape of WSRs (NLWs)

The legitimization of protest as a form of political expression in democracies is linked to evolving policing styles, and the transition from escalated force to negotiated management to strategic incapacitation over the last few decades (Gillham and Noakes, 2007; Gillham et al., 2013; Noakes and Gillham, 2006) is an important aspect forming the backdrop to the development of WSRs. During the 1960s, 'police relied on ever-increasing amounts of force to disperse protesters and break up demonstrations' (Gillham and Noakes, 2007: 342). As public attitudes shifted and protests became considered more legitimate, a negotiated management style characterized the mid-1970s to late 1990s in which law enforcement used less overtly violent tactics as well as opened channels of communication with demonstrators. However, police would resort to more contentious strategies following the 1999 Seattle protests and the terrorist attacks of 11 September 2001. This tactic would be referred to as strategic incapacitation and would rely heavily on arrests, surveillance and the implementation of various WSRs (Gillham and Noakes, 2007; Gillham et al., 2013).

The transition to seemingly more 'humane' methods of control has served to rationalize the violence exercised by democracies in the modern era (Kordela, 2016) – including the rise of WSRs. State terrorism in conjunction with other modes of repression has long been a fundamental element of liberal democratic states' policies (Blakeley, 2007). Anaïs (2011) notes that the institution of domestic policing underwent considerable militarization throughout the Cold War to handle growing unrest. This shift, particularly within Western democracies, included the development as well as deployment of technological innovations that would make governance appear benevolent and ethical. Media advancements/exposure, changing norms, public demands for fewer civilian casualties, and the rise of nonviolent resistance all led to the proliferation of WSRs (Chenoweth, 2020; Singh, 1998). 'Threatening' human bodies – not just the colonial/colonized and criminal/criminalized, but also other citizens of liberal democracies who protested for their rights and/or in solidarity with marginalized groups (impoverished, imprisoned, indigenous) – needed to be controlled but not killed.

The US Department of Defense (2013: 12) defines WSRs (NLWs) as 'weapons, devices, and munitions that are explicitly designed and primarily employed to incapacitate targeted personnel or materiel immediately, while minimizing fatalities, permanent injury to personnel, and undesired damage to property in the target area or environment'. We have selected several prominent weapons for analysis, other common ones include water cannons, tasers, sticky foam, dazer lasers, cattle prods, smoke grenades, pepper spray, bean bag rounds and stun guns. Existing literature grapples with their development, legality, proliferation, ethics, advantages and drawbacks (see Anaïs, 2011; Davison, 2009; Enemark, 2008; Fidler, 2005; Lewer, 2002; Lewer and Feakin, 2001; Rappert, 2003; Rappert and Wright, 2000; Singh, 1998), but does not zoom in on their fundamentally *sensory* nature. Although the intended use of these weapons may not be to kill (although death due to misuse/abuse still occurs and they are often accompanied by other weapons that are used with the intent to kill), 'non' or '"less lethal" is no longer a technical term but a vision of how much torment a body can take, of how close someone can come to death without dying' (Feigenbaum, 2017: 77). Furthermore, the materiality of these weapons reconfigures relationships between the state, the body, citizenship and security (Anaïs, 2011; Nieuwenhuis, 2016).

The increase of 'non-lethal' weapon development is associated with a revolution in military affairs (Demy et al., 2014; Enemark, 2008) and, at the same time, it is evident that WSRs reflect a militarization of the public sphere. Militarization refers to 'a shift in the sets of practices and tools . . . whereby instruments that had traditionally been used in international military conflicts were increasingly used in domestic policing operations' (Anaïs, 2011: 545), a 'cross-fertilization of what should be two very different operational cultures' (Wright, 2001: 226). The discourse surrounding crowds (see Brown, 1965; Foster and Louw-Potgieter, 1991; McPhail, 1991; Reicher, 1987; Reicher and Potter, 1985) suggests how their construction as irrational or threatening justifies social control (see Durrheim and Foster, 1999). WSRs are 'sold' as cost-effective weapons for governance and control owing to their benefits in terms of creating fear, isolation and disorientation in targeted crowds. They allow the control of space with little human power, provide a flexibility for police response and better preserve an ethical public image.

The proliferation of WSRs has taken place in an environment of heightened political othering in the aftermath of 11 September 2001, growing economic inequality and commercial lobbying: 'Since 9/11, the Bali bombings, the British underground rail system attack . . . and other terrorist attacks, the pendulum has swung back towards a harsher climate of policing dissent' (Baker, 2008: 20). Further, liberal democracies have frequently exhibited little restraint in the exercise of violence on citizens who are marginalized through their identity, economic, political or historical statuses (White and Perrone, 2005). The growing threats from anti-globalization, anti-war, civic justice and other domestic movement protests that sought to challenge the status quo in democracies directly threatened the elite. The 'Threat Model' of state repression has produced the Law of Coercive Monopolization; that is, when authorities are challenged, they respond with repressive action. Yet, as Davenport (2007b) explains, repression can be employed regardless of whether an explicit behavioural threat exists, or even radically surpass what is required to quell dissent.

The supposed 'non-lethality' of these weapons is mainly a function of 'merely' maiming or demobilizing the intended target. Viewed in this way, they are rendered more acceptable and humane, justified as offering a response between nothing and deadly force (see Rappert, 2001). Yet as Golan (2005: 42; emphasis original) writes, introducing less-lethal weapons as the primary tool of force 'actually *increases* police ability to use force against civilians, because it reduces the likelihood of fatalities'. Thus, notwithstanding the ever-increasing normalization of weapons within the public discourse, and in spite of the label 'non-lethal', WSRs can both escalate violence and lead to other methods of repression (see Wright, 1999). The environment in which WSRs advanced was designed to elude state accountability for deadly violence. Although catering to a narrative

wherein these weapons are more sanitized and embody a technological shift, they still 'render the politically potent body powerless even as its life is preserved' (Anaïs, 2011: 549). Making 'particular forms of governance possible' (Anaïs, 2011: 539), they entrench the expectation that one will be harmed when trying to collectively express grievances against the state.

Written over three decades ago, Martin (1986: 113) shared that 'difficulty facing the use of nonviolent action is modernised forms of crowd control, including the monitoring of dissenters and new technologies for crowd control'. A review essay in the late 1990s refers to 'technologies of political control' such as 'new chemical, kinetic and electrical less-than-lethal weapons such as CS and pepper gas sprays and plastic bullets' (Rappert, 1999: 741). Additionally, Ackroyd et al.'s work on the then - emergent technologies for social political control argued that 'the aim of these technologies is not primarily the physical elimination of components. Their target is the thoughts of opponents and potential opponents as much as their bodies' (Ackroyd et al., 1980: 20). Even as debates grew quieter, early worries about and contestations over the development of WSRs never dissipated. At the turn of the century, it was evident that these new technologies were growing. On the one hand, there was a merging between police and military, both of whom used weapons and communication systems produced by private security and defence companies. On the other hand, there was a convergence on the adoption of similar technologies for internal security and policing by different states (Wright, 1998).

Technologies are not neutral, but intrinsically political (for instance, see Sclove, 1995; Winner, 1980). Feigenbaum (2017), in her work on tear gas, draws upon Grindon's articulation of 'cruel design' – that is, objects whose research and development is driven by an objective to cause human harm and suffering. She highlights the toxicity of tear gas and how

> the riot-control industrial complex profits off political upheaval . . . Tear gas, internationally accepted as the most humane technology for social control, is a top seller. Carrying the stamp of approval from Western democracies, it travels into other nations with colonial-era promises of 'civilising' their police forces. (Feigenbaum, 2017: 98)

This cruelty of design in such technologies is not an incidental feature but crucial to their acceptance. Grindon (2015: n.p.) speaks of designs that 'force obedience on behalf of capitalism and the state'; designs that target individual bodies, designs that circulate from margin to centre – finding the 'less' of their 'less lethal' by targeting those who are most marginal, first animals, then human beings who are enemies or colonized or of lesser worth, and so on. He explains how these objects create 'the state effect' (see Mitchell, 1999) whereby objects enact power daily in silent and sharp delimitations of what is accepted as part of the public sphere. These technologies make violence and inequality structural because they offer securitized solutions to social problems that do little to address the underlying reasons for them. The sensorial governance offered by WSRs is harmful in how it works to regulate particular forms of dissent and protest.

Weapons of *Sensory* Repression (WSRs)

NLWs can be weapons of sensory repression; these weapons achieve their objectives specifically by targeting the senses. For example, the 'skunk' targets the ability to retain control over sense of smell, tear gas affects vision, metal pellets have been used to target eyes and otherwise get embedded in the skin, sound cannons affect hearing, and mobility denial systems may be used to affect movement. The sensory response in human beings is involuntary. Such weapons tend to be studied in the context of war or are interrogated in isolation spotlighting one particular weapon (for example, work on tear gas). In contrast, we provide an original account of NLWs as WSRs and innovate

by bringing insights from dispersed scholarship together within our frame of sensory repression of dissent. We demonstrate how WSR use in sensory targeting, by liberal democracies, and in non-war situations combines to result in a form of sensorial governance that translates into political (and not merely crowd) control for specific citizens whose subordinate citizenship is created and confirmed through the use of such technologies. Through investigating a variety of geopolitical sites where different kinds of WSRs have been used, and against whom, we exemplify the ubiquity of their use and the diversity of marginalized/dissenting groups affected by sensory weapons in each case in democracies that are both old and new, and in the Global North and South.

It is debatable whether the use of WSRs against protesters in democracies ought exclusively to be judged as favourable merely because they do not kill by live ammunition. The usage of WSRs reflects entrenched hierarchies of race and rights, dehumanizing those who are targeted. By depriving and distorting the possession of senses, WSRs inflict a punishment not unlike torture in terms of the corporeal effect (for documentation of this, see Amnesty International and Omega Research Foundation, 2017; Feigenbaum, 2017; Nieuwenhuis, 2016). Outside of war, when liberal democracies employ these weapons, it is upon those who are already marginalized (e.g. Kashmiri civilians blinded by pellet guns or dispersed by chili bombs; Palestinians subjected to skunk weapons; Black Americans and racial justice protesters targeted by tear gas). Notwithstanding the claims of weapons manufacturers and of the states that construct legitimizing discourses, the consequences of use are not temporary and reversible in many cases. Protesters (and even those in the vicinity) have been permanently debilitated by being blinded, deafened, left with nerve damage, paralysed and more. We enrich the literature on the 'non-lethal' aspect of these weapons by outlining the sensory nature of this supposed non-lethality and its political effects. In our discussion, we do not follow the typical classification schemas of WSRs in terms of the carrier modes or nature of application such as 'kinetic, chemical, biochemical, electrical, directed energy, acoustical, mechanical' (Tumbarska, 2018: 102; cf. Mátyás, 2015: 68–69); instead, we explicate their use from the perspective of the human bodies that are targeted.

Tear gas is a ubiquitous WSR that was gradually brought in from being used upon colonized, 'uncivilized' Others residing within imperial peripheries to those asking for economic justice, peace and civil rights in Western democracies like the USA. This chemical agent continues to be deployed against domestic populations in non-Western democracies too, from Turkey to India to Brazil. Tear gas

> is an object designed to torment people, to break their spirits, to cause physical and psychological damage . . . it turns the square, the march, the public assembly into a toxic space, taking away what is so often the last communication channel people have left. (Feigenbaum, 2017: 103)

Nieuwenhuis (2014: n.p.), referring to the deployment of tear gas in Istanbul, suggests that this is both sanctioned and legitimized in the name of casting those occupying the public territory as undemocratic, in order 'to consolidate and further the authoritarian/liberal democratic (encircle the appropriate) nature of the state and its interest'. Perera and Pugliese (2011: 1) draw upon the Fanonian term 'combat breathing' – whereby to be the recipient of state violence means that one's body is made questionable – to elaborate upon the intimacy of state violence as 'mobilisation of the target subject's life energies merely in order to continue to live, to breathe and to survive the exercise of state violence'.

Against democratic citizens outside of war, tear gas as WSR is inherently indiscriminate and a popular choice of tool against the marginalized exercising their rights. For example, over 100 cities in the USA were teargassed following the murder of George Floyd in 2020 (Lai et al., 2020). Employed against Black Lives Matter protesters, tear gas makes 'an assumptive question about

your citizenship . . . you no longer feel American' (BBC, 2014: n.p.). Not only is the possibility of permanent disability ever-present, those belonging to more vulnerable groups such as the elderly, young children or those with existing health issues are placed at even higher risk (Haar, 2018). Causing burning in the eyes, skin, lungs, mouth and elsewhere, tear gas symptoms can include blurred vision, tearing, coughing, nausea and vomiting (Chen, 2018). Instead of 'crowd control', what results is an escalation of chaos where those who are least fit and able succumb first.

Sound as a weapon can be traced to the late 1990s, accounting for one-third of the US Department of Defense Joint Non-Lethal Weapons Task Force budget in 1998–1999 (Cusick, 2020: 379). Sober assessments of acoustic trauma requiring surgery or inflicting long-term debility do not hinder their use in crowd control (see Altmann, 2001: 208). A few years into the 21st century, the utility of acoustic weapons was already established and the search for applications expanded (see Vinokur, 2004). From sound bombs over the Gaza Strip to mosquito devices deployed against younger people (see Ruiz and South, 2019), 'sonic warfare' became a reality (see Goodman, 2010). Rice (2003) speaks of the 'panaudicon', like the Foucaultian panopticon, as an auditory aspect of surveillance that creates a soundscape in which the ear is a conduit for power. In the context of sonic warfare and long-range acoustic devices (LRADs) (especially in deterrent mode) – first developed following the USS Cole bombing in October 2000 – Parker (2019: 8, 18) notes that

> the LRAD is simply the highest profile and most extreme example of a whole range of techniques aimed at the coercion, management and control of bodies through sound and listening. . . If the circumstances are right, sound can kill, but it routinely wounds, terrorises and coerces.

English (2016) traces the longer historical context of the weaponization of sound as a means of creating fear and enforcing control: the German Jericho Trumpet in the Second World War to the V1 flying 'buzzbomb' to the 'sonic boom' experimented on Oklahoma City residents before being used in Nicaragua. The sound cannon used by Egyptian forces during the 2013 Rabaa massacre was later tested by Europe to deter refugees in 2021 (Middle East Monitor, 2021).

Against democratic citizens outside of war, sound WSRs have been utilized by police on protesters in Georgia in 2007, at G20 protests in Pittsburgh in 2009, at G20 protests in Toronto in 2012, at Ferguson in 2014 following the fatal shooting of Michael Brown, in New York in 2014 following the police killing of Eric Garner, and at the Dakota Access Pipeline protests during 2016–2017 (for further examples, see English, 2016; Parker, 2019). Many kinds of injuries result from sonic warfare including ear ringing, disorientation, nausea, temporary deafness, nosebleeds and dizziness. Reports link sonic booms to miscarriages and heart failure (Feigenbaum and Kanngieser, 2015: 82). Various terms such as 'atmospheric policing' (Feigenbaum and Kanngieser, 2015), 'atmoterrorism' (Sloterdijk, 2009a, 2009b) and 'atmospheric governance' (Nieuwenhuis, 2018) have been used to argue for greater insight into how the atmosphere is weaponized to manage and coerce people.

Taking up Butler's concept of 'sensate regimes of war', McSorley (2020) focuses on smell as a sensory mode through which potential threat is apprehended in war and the apparatuses that have developed over time. The sense of smell is deeply related to the history of social hierarchies – the impoverished, the colonized, the Other. As we argue here, it is those very same people who are the subject of olfactory targeting by WSRs in non-war contexts. Hsu (2020: 152) notes that 'smell's very position at the bottom of the Enlightenment hierarchy of the senses is a product (and producer) of racial and colonial thinking'. The dehumanization of those targeted by offensive odours reinforces these historical hierarchies as they are forced to move from affected public places or even their dwellings due to the unbearable stench.

As a WSR used against democratic citizens outside of war, the 'skunk' weapon was developed by the company Odortec and used by the Israeli Defense Forces for the first time in 2008 on those in the West Bank. Routinely sprayed onto protesters from water cannons attached to armoured vehicles, Palestinians describe it as 'worse than raw sewage . . . like a mixture of excrement, noxious gas and a decomposing donkey' (BBC, 2015: n.p.). The odour remains on the skin for several days and lingers for up to five years on clothing (Schmeisser et al., 2013). Like other WSRs, its use becomes a form of collective punishment and targets those who are already relegated to a subhuman class. As B'Tselem, an Israeli Human Rights organization, observes, 'skunk is rarely, if ever, used at demonstrations with only Jewish or Israeli dissidents. The targets are Palestinian bodies, singled out according to an ethnic hierarchy for the Skunk treatment' (Nieuwenhuis, 2015: n.p.). An exception in the employment of 'skunk' was made with Ethiopian-Israelis protesting racially motivated police violence (BBC, 2015). Mistral Security, an American supplier, 'recommends it for use at "border crossings, correctional facilities, demonstrations and sit-ins"' (BBC, 2015: n.p.). The domain of proposed use is revealing of the way in which WSRs work, against whom and to quell which protests.

The ability to immobilize people and target their senses from a distance has been improved upon with every decade as 'cruel designs' get more accepted by various governments (see Krishnan, 2014 for a broader discussion of 'neuroweapons'). Kurtz and Smithey (2018: 194) refer to the 'Active Denial System' (ADS), a device that emits electromagnetic energy but 'allegedly does no lasting physical harm'. Other forerunners include the Mobility Denial System, a frictionless viscous fluid that impedes movement, and devices that fire rubber pellets, plasma energy and sponge projectiles to incapacitate the proprioceptive sense (Mihm, 2004). A commercial version of the ADS aka 'pain ray' made by Raytheon was up for sale in 2009 (Wired, 2009). Tumbarska (2018: 103) details that the ADS can project a beam at a distance of 1000 m and 'some ADS application concepts plan the installation of such systems in US prisons ceiling where everyone in the room can be remotely affected with one joystick movement or pushing a button'. The proposed test in the Los Angeles County jail was withdrawn since it was deemed to constitute torture (Lynn, 2013: n.p.). The 'attractions' of directed energy (DE) weapons are highlighted in Obering (2019: 44) along with the exhortation to keep DE funding at $3 billion or above per year since 'the United States cannot allow itself to fall behind in yet another area of warfighting'. Although ADS has not been used upon protestors so far, we note with caution how technologies used upon the 'delinquents' and 'outsiders' of a society have historically found their way into wider use eventually.

In the late 1990s, Stanton (1996: 63) referred to an arsenal consisting of, among other things, 'chemical riot agents, water cannons, and rubber bullets', being broadened by the development of 'new nonlethal riot-control technologies' such as anti-traction technology, sticky foam, anaesthetics, infrasound ('low-frequency sound generators that incapacitate individuals by causing nausea, disorientation, and bowel spasms'), microwave transmitters ('directly oriented devices that heat skin to an unbearable degree') and more. Yet he also laments the tactical problems of such technologies, essentially saying that the non-lethal technologies, in spite of being 'proof of our civility and restraint', are not lethal enough. Why? Writing in the aftermath of use of such technologies in Somalia, he states that the 'riots in the Third World' will be massive, lethal, carefully organized, involve large numbers of women and children and occur where there is no government or law. Stanton adds that

> unlike many of the US riots in the 1960s and even the Los Angeles riots of 1992, many Third World riot situations involve large numbers of *people who are out for no other reason than to kill each other*. What looks like rioting is in fact a form of warfare. (Stanton, 1996: 63, emphasis added)

The idea of the imperial periphery as a place of existential lawlessness where it is in the very nature of people to be hostile, as upheld by Stanton, is a shocking and dehumanizing trope/stereotype that persists. A historically ingrained othering allows for the use of WSRs upon specific populations by liberal democracies. In parallel with the 'irrational', 'riotous' and 'threatening' 'Third World' people, there is the perceived spectre of a similar kind of public at home (in Western and non-Western democracies both), those upon whom such weapons are exercised to simultaneously create and confirm their subordinate citizenship status.

India as the 'world's largest democracy' has deployed pellet shotguns upon unarmed civilians in Kashmir Valley (in the former state of Jammu and Kashmir) and in Manipur. The 'lesser' citizens include those who are deprived of political rights while simultaneously being claimed as democratic subjects. The use of pellets by the Indian government is one of the most prominent examples, as very few democracies use this type of WSR. However, where pellets are used, they target the eyes and cause blinding of protesters. This weapon was also extensively used in Chile during the 2019–2020 protests, in which more than 400 people lost the ability to see – many of whom now require prosthetic eyes (McGowan, 2023; Vergara and Luna, 2019). Developed by the British Ministry of Defence, rubber bullets (a later iteration being plastic bullets) were used first in Hong Kong followed by Northern Ireland in 1970 (Burrows, 2001; Hunter and Greaves, 2002). The pellet gun utilized in Kashmir is a routinized WSR that kills, disables and blinds. The prolonged use of these guns during periods of unrest entirely repudiates non-lethal claims and draws attention to sensory targeting. In 2016, within 90 days, the employment of pellet guns led to 80 deaths and 10,000 injuries. Furthermore, approximately 1.3 million pellets were deployed by paramilitary forces in just one month (David, 2016). Metal pellets also injured 6221 people between 2016 and March 2017. Several of those injured have been left partially or completely blind (Office of the High Commissioner for Human Rights (OHCHR), 2018). Barry (2016: n.p.) reported that 'the patients have mutilated retinas, severed optic nerves, irises seeping out like puddles of ink; "dead eyes," the ophthalmology department's chief calls them'. The phenomenon of "dead eyes" demonstrates the way human senses are targeted for incapacitation and repression. In Kashmir Valley, there was an increase of 74% in people certified as disabled during People's Democratic Pary (PDP)-Bharatiya Janata Party (BJP) rule between 2014 and 2017 and the use of pellet guns for crowd control was a direct reason (Wasif, 2018). Throughout 2016, 14% of the pellet victims were under the age of 15 years; an ATM guard was found dead with over 300 pellets lodged in all his organs; a 14-year-old girl was blinded within her own home (Kaul, 2018: 135). And yet, the next year, more than 6 lakh (600,000) cartridges (each cartridge containing around 600 metallic pellets) were authorized again, up from 1.2 lakhs (120,000) in the previous year. When the Central Reserve Police Force chief was asked about the use of pellet guns, he compared it to wife beating: 'this is like asking when will you stop beating your wife or have you stopped beating your wife? – we are tackling unruly crowds' (Kaul, 2018: 135–136). Although designated as a 'non-lethal' means of crowd control, pellet guns have not been used upon violent mob disturbances in other areas of India such as Gujarat and Haryana (David, 2016: 125), again confirming that WSRs enable a differential standard of threat that works against those who are already de facto lacking in rights.

WSRs are technologies of *political*, not crowd, control. The structurally grievous nature of how state power functions to inflict sustained repression and multidimensional silencing is obscured from view because states seem to be deploying 'humane' technologies upon those whose rights already mean less, in order to create and confirm hierarchical levels of democratic citizenship. Beyond death and debility, there are wider cascades of interlinked deprivations owing to the compounded nature of further injustices meted out by institutions upon those impaired as a result of these weapons. There is little attention to the use of WSRs by liberal democracies in non-war

situations, and this is even more attenuated for non-Western democracies. The sensory repression of dissent, as explored here, illustrates the nature of limits on political opportunities for collective mobilization and democratic renewal.

Conclusion

We highlight that in the absence of an assembled crowd's ability to protest injustice, we lose a crucial means of challenging the concentration of power, wealth or policymaking in liberal democratic societies. This makes the 'demos' weaker, more pliant to coercion and debased. Through a selection of WSRs in the preceding section, we have shown how the kinds of technologies that were used upon the colonized by Western democracies were later used at home upon citizens protesting for equal rights, and were further adopted by non-Western democracies for use upon citizens protesting for political freedoms.

Democracies renew themselves through challenges involving mass mobilization, but WSRs transform the nature of the political subject and jeopardize the capacity for active political action that registers disaffection via collective organization. Whether we look at women's suffrage, abolition of slavery, racial justice – collective protest has played an important role. As Martin (1986: 109) notes, 'far from destabilising democracy, protest has been instrumental in forcing the introduction of most of the freedoms that now exist in liberal democracies'. It is protest that has created the 'normal' channels of expressing discontent legitimately.

Yet, even though the ability to express dissent collectively in the form of protest assemblies is an enshrined article of democratic faith, liberal democracies increasingly move towards the adoption of technologies of repression that may make distinguishing between democracies and authoritarian systems harder. The sensory targeting of assemblies undermines the very idea of liberal democratic regimes being associated with different standards of state-sanctioned repression of dissent. Further, the acceptability/transfer/circulation of such repression technologies is legitimized globally across regime types by liberal democracies. As a result, citizens' rights such as freedom of expression and assembly that are typically constitutionally guaranteed in liberal democracies come to mean ever less, especially for certain subordinated populations. If technologies of repression were assessed differently, would WSRs deserve the kind of acceptance that they currently have?

This article has analysed the ways in which sensory repression regulates and suppresses dissent within liberal democratic states. We have argued that the use of WSRs, which are predominantly targeted at dissenting and marginalized voices, undermines the political value of citizens, challenges democratic politics and makes visible the violent nature of liberal democracies. Beyond electoral accountability, Fearon (2011: 1662) alludes to Locke's (1690) idea that 'popular sovereignty is maintained by an implicit threat of rebellion if rulers misbehave too much'. Yet WSRs, when used by liberal democracies, deter such collective action, especially for those who are already marginalized.

We began by presenting the complex relationships between this type of government, dissent, threat and repression. Subsequently, we examined the shifting landscape of NLWs alongside reiterating many of the concerns associated with these technologies. Then, we provided an original constellation of different WSRs as used for sensorial governance in non-war contexts by old and new democracies in the Global North and South. We demonstrated how WSRs transform problems of political change into problems of technological crowd management. There are limited options for resisting the physical effects of WSRs. Although the use of umbrellas, masks and goggles have become innovative ways for demonstrators to protect their bodies (see Feigenbaum, 2017; Reuters, 2019), the expectation of injury when protesting persists. In the face of ever-newer innovations in

weapons technologies (for example, lethal autonomous weapon systems) and the policing of dissent, our argument that WSRs contribute to the maintenance of toxic political orders has continuing relevance. WSRs function within the matrix of incentives, institutions and ideologies that make it possible to silence dissent and perpetuate the differential worth of people, corroding democratic ideals from within.

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