MAT Medicine Anthropology Theory

POSITION PIECES

Beyond the military metaphor

Comparing antimicrobial resistance and the COVID-19 pandemic in the United Kingdom

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Abstract

Military metaphors shape the limits and possibilities for conceptualising and responding to complex challenges of contagion. Although they are effective at communicating risk and urgency and at mobilising resources, military metaphors collapse diverse interests and communities into 'fronts', obscure alternative responses, and promote human exceptionalism. In this article, I draw from criticisms of the use of military metaphor in scientific and policy descriptions of antimicrobial resistance (AMR) over the past sixty years on order to compare with and explore the use of military metaphors in descriptions of the COVID-19 pandemic. As AMR research has recognised the importance of symbiotic human–microbe relationships and new areas of interdisciplinary collaboration in recent years, a corresponding decline in the use of military metaphor in scientific discourse has begun to emerge. I ask how the legacy of the military metaphor in AMR research can offer lessons regarding or alternatives to the martial language currently saturating responses to the COVID-19 pandemic in the UK.

Keywords

Antimicrobial resistance, COVID-19, Metaphor, Multispecies ethnography, Human-microbe relationships

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Introduction

Metaphors are imaginative devices that allow for the easy communication and understanding of novel or abstract concepts, experiences, and problems. They 'express, reflect and reinforce' different ways of making sense of the world (Semino, Demjén, and Demmen 2016, 626) and are integral to the fabric of both everyday and specialist discourse (Bleakley 2017). Similarly, metaphors offer ways of creating narratives around illness experiences and medical interventions. However, Susan Sontag (2009) argues that illness is not metaphor, asserting that it is fundamentally a bodily experience. Therefore, metaphors invite anthropological critique.

Antimicrobial resistance (AMR), which causes drug-resistant infections, and the COVID-19 pandemic, itself caused by the novel SARS-CoV-2 virus, are two contemporary health crises caused by contagion. In the UK, medical, scientific, political, and media discourse articulate disease vectors, experiences, and responses predominantly through military language and metaphor (e.g., descriptions of the virus as a 'silent killer', 'invisible enemy', or, for AMR, 'battling against superbugs' [PATH 2019; Sawer 2020]). Despite similarities in the military language used to frame AMR and COVID-19, the affective and temporal dimensions of these imagined wars have had different and significant consequences for how disease metaphors have been developed and used. Within AMR discourse, the war against resistant bacteria has been described as 'slow burning', spurred by imagined dystopian futures of a post-antibiotic era. In 1954, two decades after the resistance of bacteria to antibiotic drugs was first documented, warnings from medics came that 'we may come to the end of antibiotics. We may run clean out of effective ammunition and then how the bacteria [. . .] will lord it' (Batten 1955; quoted in Podolsky 2018, 2). In recent years, this sentiment has continued in political discourse, and can be seen in the 2014 UK government's commitment to 'fight' drug-resistant infections (Department of Health and Social Care et al. 2014; Walsh 2014). In contrast, the COVID-19 pandemic has been represented as uniquely in and of the immediate present and as disrupting social, political, and economic life on a global scale. On 26 March 2020, the US surgeon general remarked, 'We are at war with a virus and not winning [. . .] This war needs a war-time plan to fight it,' before calling a global ceasefire on all human-to-human conflicts (Guterres 2020). This ironic statement illustrates how the military metaphor for contagion is underpinned by a shared and self-evident category of 'human'. The assumption is that a threat against 'humans' by an external other supersedes any other conflict.

Microbes are ancient, and have shaped life on Earth for millennia. Furthermore, humans live biologically and socially within the microbial world through our essential microbiomes, food practices, and ecosystems. These facts when combined with the rising numbers of drug-resistant bacterial infections and the likelihood that COVID-19 may become endemic suggest that the military metaphor as a default framing for ongoing and future contagions, infections, and epidemics is increasingly inappropriate. An anthropological account of complex microbial

challenges such as those posed by the SARS-CoV-2 virus and resistant bacteria must then include not only humans, but also more-than-human actors.

Military metaphor

Most scholars credit Thomas Sydenham, a 17th-century physician, with the introduction of military language into medicine. On his approach to infection, Sydenham wrote, 'I attack the enemy within, a murderous array of disease must be fought against and the battle is not one for a sluggard [. . .] I proceed straight ahead, and in full confidence, towards its annihilation' (quoted in Bleakley 2017b, 16). Sydenham's metaphor was itself an example of wider military metaphors typical of his age, which are themselves still common today. For example, Claire Duncanson has argued that a hegemonic masculinity based on 'physical strength and aggression' continues to 'command power and respect and is recognisable as an ideal' in the British military (Duncanson 2009, 65). Even military peacekeeping is fraught with masculinised colonial distinctions between 'self' and 'other' (Duncanson 2009, 65). Leaders are imagined to be strong, male, and direct, with interventions framed as both violent and imperial. Military framings of non-military matters seem particularly appealing during times of crisis.

The war metaphor implies that humans have effective strategies or weaponry to combat the threat, such as diagnostic tools ('search and destroy'), therapeutic drugs ('magic bullets'), or biosecurity protocols deployed by one side against another. Although these are useful tools, COVID-19 and drug-resistant infections present complex, multifaceted challenges, against which there can be no one-size-fits-all strategy. Microbes like coronaviruses or resistant bacteria are embedded within (human) bodies and within social, economic, political, cultural, and ecological contexts. Any strategy implemented, then, requires careful, ongoing engagement with those contexts and with the microbial world. How does military language shape responses to microbial threats and how do these differ between slow and quick crises?

War creates 'fronts' and imagines that a problem can be overcome through action, attrition, or perseverance. Furthermore, war can distil the shared collective experiences of intense emotional and social upheaval into a single event, enabling comparisons with historical hardships and victory (e.g., the 'blitz spirit' said to characterise the British response to German bombardment during WW2 [Baehr 2006]). Faced with the rapid emergence of the novel SARS-CoV-2 virus, politicians, journalists, and scientists drew from potent existing metaphors to describe the disease and military metaphors in particular to situate calls for action, communicate risk, and mobilise resources. In the following section, I trace the ways in which the military metaphor has shaped and limited AMR as a 'slow burning' challenge in the UK. I then contrast this with the deployment of military language in the UK's response to the

COVID-19 pandemic in political and public discourse. The slower 'unfolding' of AMR provides insight into the known limits of the military metaphor, and suggests the need for alternative language to describe and shape our ongoing relationships with the microbial world.

Antimicrobial resistance

Resistance to antibiotic medicines has a long history. Mary Barber identified the bacteria *Staphylococcus aureus* as resistant to antibiotics in the 1940s, and in 2014 AMR was named an urgent global threat by the UK government (Gradmann 2011; Podolsky 2018). Only one new antibiotic class has been developed since the 1960s, with bacteria becoming increasingly resistant to existing drugs. Although slower in terms of effect than the COVID-19 pandemic, the scale of AMR and knock-on effects loom larger, with an estimated 10 million deaths globally by 2050 and a cost of $100 trillion to the global economy (Hall, McDonnell, and O'Neill 2018, 50). Headlines proclaiming the 'antibiotic apocalypse' have captured the popular imagination (Wallis and Nerlich 2005; Nerlich and James 2009). Although AMR is a natural phenomenon, it is the lack of effective treatments (such as antibiotics) for drug-resistant infections that constitutes danger. To conceptualise and respond to this abstract threat, the military metaphor transforms AMR into a discrete entity that precise medical intervention can overcome.

AMR is a challenge occurring in the present, but its most significant consequences are always imagined to be in the future. The fear of medics in the 1950s regarding a lack of 'ammunition' are echoed with increasing urgency by economists today, who warn of the escalating 'arms race against bacteria' (Batten 1955, quoted in Podolsky 2018; Hall, McDonnell, and O'Neill 2018, 3). Even so, the consequences of AMR are creeping closer. As drug-resistant infections become increasingly prevalent, routine and comparatively safe medical procedures may become potentially deadly. In 2014, the UK government announced the commissioning of the O'Neil Report to review the scale of the challenges that AMR presents and launched the Longitude Prize to catalyse research into rapid diagnostics. These efforts aimed to position the UK at the forefront of AMR research and to spur innovation (Brown and Brown 2019). These new initiatives were ushered in according to a war-like narrative; the enemy was portrayed as the 'superbugs', which galvanised scientists to 'fight' infection and 'mobilise' resources and expertise to find 'new ways to defeat them' (Collier and Lakoff 2015; Caduff 2015). However, systemic problems, including the lack of profitability for diagnostic devices and antibiotic R&D, have demonstrated that the imperative of war is not enough for research scientists, start-ups, and pharmaceutical companies to bring innovation to market (Street 2017).

As previously discussed, the military metaphor can prioritise strategies which collapse diverse interests and stratifications of people, communities, and states into a single 'front', leaving little space to debate the appropriateness, purpose, or morality of the interventions deployed (Andrews 2020; Hartmann-Mahmud 2002; Lakoff 2003). This can erase the voices and/or needs of vulnerable groups, perpetuate asymmetrical power relationships and inequalities, and justify collateral damage. The narrow creation of 'fronts' with regards to AMR does little to address wider structures of antimicrobial use in contexts, such as agriculture or aquaculture, which exist outside of individual neoliberal models of human antibiotic consumption (Chauhan et al. 2018). Further, these 'fronts' can preclude certain kinds of interventions and expertise traditionally considered 'soft' (feminine), such as the arts and humanities, in comparison to 'hard' (masculine) sciences. Although warfare creates an accessible narrative for AMR (for communicating research through GP appointments and public health messaging), it excludes an acknowledgement of the structural factors which contribute to resistance, such as capitalist imperatives to maintain productivity (Denyer Willis and Chandler 2019). However, as AMR research continues to develop, interdisciplinary initiatives such as One Health are beginning to expand responses to AMR by drawing together expertise from animal, environmental, and human healthcare. This approach counters anthropocentric approaches and acknowledges the interconnected aspects of AMR when collecting data and crafting solutions to drug resistance.

AMR messaging is most common in medicalised spaces such as hospitals, doctors' waiting rooms, and pharmacies, situating the problem within a technical, biomedical context. Drawing on immunology textbooks, the military metaphor has conjured an esoteric landscape comprising immune system 'fortresses', powerful 'superbugs', 'good bacteria', and antibiotic medicines with 'public consciousness' (Brown and Crawford 2009; Kurzgesagt 2014; Servitje 2019). The slow tempo of AMR has enabled this military imaginary to permeate public consciousness and associate human control over and involvement in the microbial world with inherent antibiosis. As AMR research has become increasingly diverse, the use of military metaphor has begun to decline. New interdisciplinary collaborations and research areas like the human microbiome have created conditions for new imaginative spaces and responses to the microbial world, often referring more to 'balance' than domination (Man, de Steenhuijsen Piters, and Bogaert 2017). Emphasis on technical solutions can obfuscate other strategies for living with microbes which acknowledge the interdependence of human and non-human ecologies. Mark Davis (2016) and Nik Brown (2018) build on Emily Martin's (1994) work on the militarised immune system to note that immune systems are not about maintaining self and non-self, but about 'on-going relationships with "the other"'. Symbiotic relationships between human and microbes are integral to health, suggesting greater attention should be paid to areas such as the microbiome, where the balance of microbial life promotes wellbeing (Benezra, DeStefano, and Gordon 2012).

The use of the military metaphor often implies that humans are powerful and clever enough to subdue, control, and exterminate other forms of life considered a threat. Yet no pharmaceutical intervention or public health measure is guaranteed to solve the problem of AMR. Bacteria's continual evolution means that the war against resistance cannot be decisively 'won' through galvanising innovation or promoting human exceptionalism. The military metaphor limits the imaginative and practical possibilities for ongoing human–microbe relationships and structural issues of resistance in the present. Thankfully, the slow unfolding of AMR is enabling new collaborations and critiques to emerge which in turn may open new imaginative spaces within which answers may be formulated to questions of human–microbe entanglements such as the COVID-19 pandemic.

COVID-19

COVID-19 is the pan fire to AMR's slow burn. The rapid spread of the COVID-19 pandemic has called for strategic leadership and action so as to limit loss of life and economic damage. However, as the legacy of the military metaphor for AMR demonstrates, martial language can erase nuance and limit possible responses and conceptualisations. On 23 March 2020, UK prime minister Boris Johnson announced a national lockdown, during which he declared that against the 'invisible killer', 'in this fight [. . .] every one of us is directly enlisted' (BBC News 2020a). His use of war language implied a state of exception where radical action could and had to be taken at the expense of normalcy in daily life. Drastic measures such as lockdowns, unthinkable in peacetime, were introduced. To communicate risk and ease in new regulations, the UK government created the 'stay at home, save lives' campaign, which was styled on British WWII propaganda. Documents released by the UK government's Scientific Advisory Group for Emergencies (SAGE) argued that 'emotional messaging, stressing a direct personal threat, and appeals to social duty' were necessary for the UK government's strategy (Blakely 2020). The military metaphor may then have been a deliberate choice. It is important to remember, however, that under war conditions sacrifice, hardship, and danger can be justified or naturalised as collateral damage, erasing stratifications of risk. In a rapidly unfolding 'war', the politics of martial language can have lasting consequences, and it is therefore imperative that lessons from other kinds of human–microbe conflicts are heard and non-military alternatives sought.

Death toll counters in national newspapers, government messages on TV, and enforced social distancing made the pandemic visible and immediate. In the UK, military language manifested social, political, and material consequences while acting as an imaginative device through which narratives could be constructed and understood. Although SARS-CoV-2 has been described as the 'invisible enemy' by both scientists and politicians (Chen 2020), the military metaphor has introduced a new materiality which renders the pandemic visible, transforming

both objects and spaces in its periphery. For example, when *Lancet* editor Richard Horton demanded better UK government provision for the health sector (Dresch 2020; Evans 2020), routine medical equipment was transformed into 'armour' to 'defend' healthcare workers. Hospitals were transformed into warzones as medics described experiences 'strikingly similar to battlefield medicine: desperate and unrelenting encounters with patients, an environment of high personal risk, an unseen lethal enemy, extreme physical and mental fatigue, inadequate resources and unending accumulations of the dead' (Brock and Palmer, forthcoming: quoted in BBC News 2020). Shifting research priorities led to an 'army of scientists' 'redeploying' to 'crowd-fight' COVID-19 (see, for example, CrowdfightCOVID.org, as well as Edinburgh 2020 and Viglione 2020). Finally, swathes of British people adopted 'shielding' as a preventative tactic as UK government guidelines attempted to demarcate safe and pathological encounters (PHE 2020).

The tension between war as an act of mobilisation and the 'stay at home' campaign may have been confusing to a public that associates declarations of war with calls to arms. Highly militarised terms like 'lockdown', 'isolation', and 'quarantine', in addition to new terms like 'social distancing', carry implications of urgency and fear, and may have contributed to greater levels of anxiety, loneliness, and psychological distress among the general public. Such framing also creates confusion over who or what is the threat—the pathogenic virus, shared spaces, or people themselves? For elderly and/or vulnerable people, this confusion may have worsened existing health conditions by preventing those in need from seeking care or attending screenings for illnesses such as cancer (Maringe et al. 2020). Alternative language such as 'physical distancing', 'safe contact', or 'cocooning' have emerged on social media as community responses aiming to consciously reframe the harsh military language used by the UK government. I observed this language in several Edinburgh community Facebook groups created to assist vulnerable members of the community or those in isolation, and suggest its use reflects the importance of care and community as effective strategies to live with the virus. Challenges to the military metaphor also appeared on Twitter through the #ReframeCOVID initiative, led by linguist Elena Semino and carried by other academics across multiple languages and disciplines, who suggested many alternatives to military language during the European lockdown.

A disturbing consequence of military metaphor is the implicit naturalisation of sacrifice under war conditions. In the UK, 'frontline' National Health Service (NHS) staff worked for long periods without adequate (WHO-approved) personal protective equipment (PPE), which increased their risk of contracting COVID-19. However, they have been valorised for their sacrifice in a discourse inflected with comparisons to WWII by the queen, the UK government, and the 'Clap for the NHS' movement. Feminist analysis of the 'ennoblement of sacrifice' in war argues that war dead are often 'appropriated by the living' and mined as

political and rhetorical resources (Åse and Wendt 2019, 2). I suggest that the military metaphor here contributes to the naturalisation of the risk posed by COVID-19 instead of foregrounding the responsibility of the government to provide PPE and SARS-CoV-2 testing kits. Further, military sacrifice relies on imaginaries of the transcendental nation and 'symbols of masculinised courage' (ibid. 2019, 1). Comparisons with WWII and military sacrifice obscure the ways in which structural inequalities such as race, class, and gender drastically affect vulnerabilities to COVID-19. As with AMR, war metaphors used in political discourse collapse diverse communities and interests into assumed 'fronts'. However, when 61 percent of COVID-19 deaths recorded in NHS settings took place within ethnic minority communities (Marsh and McIntyre 2020), institutional responses should be critically nuanced instead of limited to heuristic comparisons. Which kinds of people are sacrificed for what kind of nation?

Conclusion

War is a political project. AMR is a serious, complex, and global challenge that has been framed in military language for over sixty years. By examining how war metaphors have shaped AMR debates and limited conceptualisations, and by taking note of where new imaginative spaces are emerging, I suggest lessons can be learnt that could inform responses to emergent health challenges like COVID-19.

War metaphors can obfuscate alternative interventions and conceptualisations of a given problem. Diversity of language and imaginative framings is necessary, just as diversity of expertise is required for complex global health challenges. Bacteria will continually develop resistance to drugs, and viruses will continue to emerge as epidemics or become endemic. Humans must learn to live with the microbial world, partially through the generation of more imaginative framings for events such as pandemics, which do not use the language of war. As I mentioned, Elena Semino and others have collectively begun foraging for metaphorical alternatives for use in pandemic discourse through #ReframeCOVID[1]. The same could be helpful for AMR.

It is clear that the language of war should not go unquestioned as we as a global collective attempt to overcome the challenges presented by antimicrobial resistance, climate change, and economic justice. A statement from the WHO on 13 May 2020 argued that the SARS-CoV-2 virus was 'not an enemy to be eradicated, but a long-term life fact', hinting that 'the new

1 For more information, see the live #ReframeCOVID document here: https://docs.google.com/spreadsheets/d/139iY5kn1tCuHOQ2Y1q2LjVQrs27jFoBLGJHAEJagtDA/edit#gid=496446171

normal' included living with microbes (WHO 2020). This means reimagining our human relationship to pandemic disease beyond the military metaphor; new imaginative possibilities for language are required to expand the options available for responding to, living with, and understanding life on Earth.

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