Foreword

A colleague once told me a rather curious anecdote.[1] In the 1980s, he attended a protest by the Campaign for Nuclear Disarmament (CND) in Central London. At the rally, he spotted an unlikely figure among the usually left-leaning members and sympathisers of the CND. It was the imposing frame of a member of a well-known American outlaw motorcycle club operating in the UK. Curious to find out why an outlaw biker would protest against nuclear war, the colleague managed to strike up a conversation. The biker, it turned out, was rather incensed by the prospect of nuclear warfare, albeit not for reasons one would usually expect. Quite worryingly, he was not really opposed to harming or killing people. He was certainly no pacifist. The problem, he reasoned, was that nuclear war was not 'proper' war. If there had to be any fighting, then it had to be done in the 'correct' way, namely 'hand-to-hand' and 'man-on-man.' Pressing the button on a nuclear launch pad was no way to conduct conflict. It was not war at all.

Despite the questionable sense of ethics on display here, the biker probably did have a point. Notwithstanding recent skirmishes between Indian and Chinese troops in the Himalayas which reportedly involved brutal hand-to-hand combat, the world the biker was yearning for — where burly men would bravely thrash it out on the battlefield — seems long gone.[2] One wonders, though, whether the biker's view of conflict rested upon a generous amount of idealisation. Indeed, Hegel, the Teutonic master, already opined that gunpowder, central to the operation of guns, rifles and cannons which enable targeting from a distance, was the work of human thought and promoted human thinking. It was needed for the pursuit of conflict; hence, Hegel dryly observed, it was invented by human beings.[3] More generally, from the bow and arrow to the invention of the airplane to the modern-day remote-controlled drone, nothing seems to be more human than the ability and willingness to develop the technological means, be they primitive or sophisticated, to inflict harm on others while, at the same time, insulating oneself from their counterattack. Not surprisingly, then, armies rely on ever more sophisticated forms of technology to conduct hostilities. Technologies that are designed by and developed for humans.

The papers in this special issue all speak to the theme of military technology and weaponry, and are intended to move the debate on the subject forward. Interestingly, while, since 9/11, papers on just war theory have proliferated faster than weapons of mass destruction in the English-speaking, or 'analytical,' tradition of philosophy, the philosophical issues arising from military technology and weaponry have received relatively little attention,

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[1] I thank Martin Butcher for this amusing anecdote.

[2] BBC News UK (16 June 2020), "India-China clash: 20 Indian troops killed in Ladakh fighting," available at www.bbc.co.uk/news/world-asia-53061476, Accessed March 29, 2021.

[3] See E. Black, "Hegel on War," *The Monist* Vol 57/No 4 (1973), pp. 570-583.

with the exception of the longstanding debate on nuclear weapons.[4] At least among analytical philosophers, the implicit assumption seems to be that insofar as it is possible to delineate normatively sound frameworks for armed conflict, the deployment of military technology and weaponry is — forgive the pun — a mere technicality. In recent years, for instance, much intellectual effort has been devoted to clarifying on what normative basis soldiers are morally permitted to use force in an armed conflict.[5] The technological means they use to do so have not nearly received half as much attention. Thankfully, this seems to be changing, as recent debates on remote-controlled weaponry ('drones'), autonomous weaponry ('killer robots') and cyber capabilities attest.[6] For, in a somewhat dialectical fashion, the philosophical issues arising from military technology and weaponry are not exhausted by questions of compliance with appropriate normative frameworks; the availability of certain technologies also has the potential to transform how we view the character of armed conflict, theorise it, and think about its underlying normative frameworks.

Indeed, the papers in this special issue all speak to the transformative effect of technology. Writing from an analytical perspective, Jennifer Kling, in her contribution entitled **"Not even close to a fair fight,"** takes up the question to what extent the emergence of certain weapons technologies renders the very concept of 'a fight' — let alone a fair one — obsolete. What, if 'war' is not about fighting in any discernible sense anymore? What if it is just about killing as many individuals as quickly and efficiently as possible — something that the biker in the above anecdote objected to? In the absence of a fight, can there be a permission to kill? Whatever the answers might be, Kling's piece shows that the impact of emerging weaponry might be more problematic for how we theorise armed conflict than is often assumed.

As Joshua Andresen's contribution, **"The Paradox of Precision and the Weapons Review Regime,"** indicates, some of Kling's conclusions even hold true for weapons that are typically deemed morally and legally desirable, most notably precision-weaponry. The paradox of precision weaponry, Andresen notes, is that it still exposes civilians to high degrees of harm, a point that has also recently been raised in political science and conflict studies.[7] Combining law and philosophy, Andresen argues that the best way of tackling this issue consists in strengthening legal review procedures for weaponry.

But what about the emergence of weapons that, unlike the systems Andresen has in mind, are much harder to conceptually classify and legally regulate? We might very well be living through a historical period that is likely to witness the emergence of 'weapons' that are radically different from Hegel's gunpowder and the kinds of weapons we have hitherto been familiar with. Adopting a more sociological and continental philosophical perspective, Alessandro De Cesaris' paper, **"What is a Digital Weapon?,"** grapples with the question of how we can think about the weaponization of digital technology in general, and of

[4] See S.P. Lee, *Morality, Prudence and Nuclear Weapons* (Cambridge: Cambridge University Press, 1993).

[5] See J. McMahan, *Killing in War* (Oxford: Oxford University Press, 2009).

[6] See B.J. Strawser (ed.), *Killing by Remote Control* (Oxford: Oxford University Press, 2013); Alexander Leveringhaus, *Ethics and Autonomous Weapons* (London: Palgrave, 2016) ; F. Allhoff, A. Henschke, B.J. Strawser (eds.), *Binary Bullets: The Ethics of Cyberwarfare* (Oxford: Oxford University Press, 2016).

[7] See M. Shaw, *The New Western Way of War: Risk-transfer War and its Crisis in Iraq* (Cambridge: Polity Press, 2005) ; B. Cronin, *Bugsplat: The Politics of Collateral Damage in Western Armed Conflicts* (New York: Oxford University Press, 2018).

information technology in particular. The emergence of digital weaponry, De Cesaris argues, radically challenges how we theorise violent acts and attacks. More conventional pre-digital frameworks of the regulation for conflict seem no longer be adequate. Whether there are suitable replacements remains to be seen.

Also writing from within a more continental and critical philosophical tradition, Elke Schwarz, in her paper **"Autonomous Weapons, Artificial Intelligence and the Problem of Meaningful Human Control,"** considers a new type of weapons system that may escape our established normative and legal frameworks. Hitherto the assumption has usually been that human individuals control weapons. Someone, in Hegel's days, had to pull the trigger on a musket. During the two World Wars, tanks needed drivers; aircraft needed pilots. And even in an age of remote-controlled weaponry, someone in a cubicle has to push the button on the control console of a drone. By contrast, so-called autonomous weaponry, Schwarz points out, eludes human control and thus threatens our sense of moral and political responsibility. One result of this, as Schwarz puts it, is a "de-skilling of [human] moral faculties" when it comes to making decisions about life and death. The emergence of autonomous weaponry, then, not only poses a technological challenge; it also impacts on how human individuals view their own agency in times of conflict.

In their joint contribution, **"Mapping Meaning and Purpose in Human-Robot Teams: Anthropomorphic Agents in Military Operations**," Massimiliano Cappuccio, Jai Galliott and Eduardo Sandoval also have the issue of human agency in relation to autonomous weaponry in mind. That said, their approach differs from Schwarz's. Whereas, for Schwarz, the emphasis lies on the ability of autonomous weapons to operate independently from human individuals, Cappuccio *et al* stress the challenges posed by interactions between human individuals and autonomous machines in the high-risk context of military operations. Drawing on philosophical psychology and cognitive philosophy, the paper provides a critical perspective on the phenomenon of anthropomorphism, that is, the human tendency to attribute human traits to artificial devices. The aim of the paper is to improve the interactions between soldiers and autonomous military technology.

Paul Dumouchel, in his contribution entitled "**Lethal Autonomous Weapons Systems: Organisational and Political Consequences,"** continues with the theme of machine autonomy. However, compared to Schwarz, Dumouchel is more sceptical about claims regarding the unprecedented nature of autonomous weapons systems. Instead, Dumouchel proposes that we should view the emergence of such weapons as responses to social and political pressures, which we have already witnessed in the context of remote-controlled weaponry. In particular, autonomous weapons reinforce a trend towards smaller militaries that tend to operate via Special Forces and other elite groups, for example, those possessing the expert knowledge to programme complex autonomous weaponry. Unlike for Schwarz, the point, for Dumouchel, is not that no human agent will be responsible for the use of force. It is, rather, that only a small and select group of individuals will be responsible. This certainly has important political repercussions. As Dumouchel puts it, a rigid separation between highly trained specialists of violence and the average population has, from a historical perspective, been detrimental to democracy.

The above contributions all highlight, in their respective ways, how weaponry has the potential to transform armed conflict, for better or worse. In my own contribution to this special edition, **"Beyond Military Humanitarian Intervention: From Assassination to Election Hacking?,"** written in the analytical philosophical tradition, I examine the interplay

between the debate on military humanitarian intervention and technology. The idea of non-self-defensive war waged for the achievement of humanitarian goals has long had special significance for the issue of technology and *vice versa*. As I argue in the paper, the Kosovo War in 1999, and especially NATO's reliance on high-altitude bombing (with planes flying at 10000 ft) in its course, seems to be a precursor to some of the dynamics observed by Kling, Andresen and Dumouchel in their respective papers. Indeed, Michael Ignatieff referred to the Kosovo War as a *virtual* war.[8] In my paper, I consider to what extent existing and emerging technologies can facilitate new forms of interventionism that increasingly transcend the classic concept of military humanitarian intervention, with its reliance on the use of kinetic force and large-scale military operations, as witnessed in Kosovo and elsewhere.

None of the above, of course, should distract from the formidable threat still posed by nuclear weapons. As I argued earlier, the philosophical (and other academic) discourses surrounding nuclear weapons are arguably the most developed when it comes to the study of weapons technology. Jean-Pierre Dupuy, in his paper **"On the Rationality and Ethics of Nuclear Deterrence,"** offers some important insights into the subject. As Dupuy's contribution shows, the debate on nuclear weapons, though nowadays overshadowed by disputes over autonomous weaponry, cyber weaponry, and remote-controlled weaponry, has not come to an end.

The papers collected in this special edition also raise important questions about the permissibility of weapons research and development. Few have done more to explore this question than John Forge in his works *Designed to Kill: The Case Against Weapons Research* (2013) and more recently in *The Morality of Weapons Research: Why it is wrong to design weapons* (2019).[9] I am very pleased that Professor Forge agreed to contribute to this special issue via a debate with Dr Jai Galliott. And I am also grateful to Dr Galliott for responding to the philosophical gauntlet thrown down by Professor Forge. Their debate is a model for academics and researchers: relevant, civil, intellectually rigorous, and informed.

Taken together, the papers contained in this special issue, as well as the debate between Forge and Galliott, illustrate how important and fruitful the topic of military technology and weaponry is for philosophy, regardless of any particular approach. In this sense, I hope that the material can inspire new research in an increasingly visible and vibrant area of contemporary philosophy.

Last but certainly not least, my thanks go out to Andreas Wilmes, the editor of the *PJCV*, for his encouragement and patience. Editing a journal during a major pandemic is no mean feat, and I am grateful to Andreas for his guidance throughout what has been a rather long and laborious process. My thanks also go out to Teodora Artimon for preparing the manuscript for publication. I am grateful to John Forge, whose own work on the moral permissibility of weapons research has been an inspiration to me. John was instrumental in suggesting this special edition on military technology. Naturally, no special edition can exist without authors, and I would very much like to thank all the contributors for their hard work, patience and enthusiasm. As George Clemenceau famously put it, war is too important to be

[8] M. Ignatieff, *Virtual War: Kosovo and Beyond* (London: Vintage, 2001).
[9] John Forge, *Designed to Kill: The Case Against Weapons Research* (Dordrecht: Springer, 2013) & *The Morality of Weapons Research: Why it is wrong design weapons*, Springer Briefs in Ethics (Cham, CH: Springer Nature, 2019).

left to the generals. Similarly, military technology is far too significant to be left to the engineers (and the generals, too).

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