

## The Literature of Drones: Ethics and Remote Killing in *Ender's Game*

Orson Scott Card's *Ender's Game* (1985) is a controversial novel that continues to rouse debate to this day. Based on a short story that first appeared in *Analog* in August 1977, the novel went on to win the Hugo and Nebula Awards in 1986, and was turned into a blockbuster film starring Asa Butterfield in 2013. *Ender's Game* shares many themes with other Cold War classics such as Robert A. Heinlein's *Starship Troopers* (1959) and Joe Haldeman's *The Forever War* (1974). However it goes far beyond these novels in that it also represents a major shift in the relationship between the human and the machine. In particular, the novel envisages a world in which the human has been removed from warfare completely, replacing human-piloted bombers and soldiers on the ground with remotely-controlled spaceships sent to destroy a distant alien foe. In this case, the novel pre-empts present-day drone warfare, and many of the issues we are facing today in terms of the ethics of targeted killing, and the responsibility (or not) of drone operators and their superiors who are tasked with killing targets that are themselves assigned by a machine.

Just like our modern-day world of Predator and Reaper drones, so Card acknowledges the ambiguity of the human involvement in robot killing. When Ender and his friends are first plugged into the computer simulation, they assume they are piloting strictly robot drones that they have no problems sacrificing throughout the course of battle. And yet as they later discover, these same 'drones' are in fact crewed by human beings. This revelation re-contextualises the original act, shifting the characters from remote pilots to puppet masters, sending human crews to their deaths without so much as a second thought. And yet in this example, the human crews would seem to serve no practical function save to justify the actions carried out remotely by Ender and his friends.

However, if they are sent as ethical cover, then they are surely insufficient, for their sacrifice is neither recognised nor remembered by the wider human community; it is certainly not recognised by their alien adversaries. The alternative then is to suggest that the human crews in *Ender's Game* are an attempt to re-insert the human into a machinic process – to take back some control from the

machine. However, at no point do any of the human crews countermand the orders sent to them; nor do they add anything distinctly ‘human’ that Ender and his friends don’t already add remotely. Thus they are insufficient both as ethical cover and as a human intervention, which leads us to wonder: why bother sending humans at all?

### **Introducing Ender Wiggin**

*Ender’s Game* follows the protagonist Andrew ‘Ender’ Wiggin, a young boy taken from his parents at an early age and entered into Battle School, where he is pitted against other gifted youngsters to prepare him for a military campaign against a distant alien foe. While Ender is seen as the only hope to save the human race, he must sacrifice everything in order to benefit the greater good. The twist comes at the climax of the novel when Ender and his friends take part in a massive computer simulation against the alien homeworld. Days and days of tireless battle push the children to the limits of their endurance until finally they beat the computer and win the simulation. Only when the game comes to an end do they learn that it wasn’t a simulation at all, but rather they were controlling (and sacrificing) real human lives to destroy the alien homeworld. The novel ends with Ender weighed down by the guilt of what he has done. Drawing on information planted within him by the aliens, he finds the cocoon of the last remaining alien queen and vows to carry it to safety. He then leaves to travel the stars with his sister Valentine, acting as an ‘itinerant speaker for the dead’ (Card 1991: 326), telling stories about the lost race while carrying the cocoon with him in order to find a place of peace.

Clearly, *Ender’s Game* has much in common with other science fiction novels published during the Cold War. Just like Heinlein’s protagonist Johnny Rico (*Starship Troopers*) and Haldeman’s William Mandella (*The Forever War*), Ender is turned into a human weapon, crafted as a tool to carry out a function on behalf of an enigmatic sovereign: ‘Like a gun [...] functioning perfectly but not knowing what you were aimed at. *We* aimed you. *We*’re responsible. If there was something wrong, we did it’ (Card 1991: 301). He is also bound up within an extensive surveillance network, much like Jason Taverner in Philip K. Dick’s *Flow My Tears, the Policeman Said* and Shevek in

Ursula Le Guin's *The Dispossessed* (both 1974). More significantly still, he is also located within a cybernetic framework, and is constituted in relation to an all-seeing omniscient machine – the Battle School computer – much like the inhabitants of Luna in Heinlein's *The Moon is a Harsh Mistress* (1966). This same computer crafts and shapes Ender over time, not just in the battle simulations, but also in a psychological game he is forced to play, in which he must defeat a symbolic giant and solve riddles in order to try and beat the system. In this case, the computer game pits Ender against elements of his own psyche and acts as a kind of mirror, such that there is no telling where the game stops and Ender begins. Thus the game is both constituted by Ender and subsequently constitutes Ender in turn – a fitting analogy for the relationship between the human and the machine, both in the novel and beyond.

### **The Technology of War**

War is a central theme in *Ender's Game* and has many implications for our modern-day world. Indeed, it has even worked its way into public discourse, with *Ender's Game* sitting alongside *Starship Troopers* as one of the most prominent fiction novels to feature in many of the American military's popular reading lists, with several of its themes and technologies working their way into discussions surrounding future warfare and the practical means through which the state engages in war (Singer 2009).

However, it is significant that the war depicted in *Ender's Game* is somewhat different to the wars fought in novels such as *Starship Troopers* and *The Forever War*, for it is a war that none of the protagonists ever actually engage in face-to-face. Any threat posed to the characters is presented primarily through the form of video media, which Ender watches as he seeks to learn more about the alien foe. This contrasts with the wars that both Rico and Mandella experience directly as they are faced with a knowable enemy that they must engage in combat. This risk posed to their lives marks Rico and Mandella as members of a military cadre to which the wider population can respect and understand. Though the reasons for the two wars vary and the outcomes differ, there can be no

question that both Rico and Mandella are soldiers fighting in a war against a knowable enemy while putting their lives on the line and risking everything to fight for the greater good, whatever that 'good' may be.

In contrast, the war in *Ender's Game* functions as an artificial construct that serves to legitimize a certain set of behaviours, for the characters never actually put their lives in danger on the field of battle. Though Ender and his friends certainly engage in an act of sacrifice (they give their lives over to the state), it takes a different form to that represented in *Starship Troopers* and *The Forever War*. In this example, the blood sacrifice is not made by Ender and his friends, but rather by the distant and unknowable humans crewing the ships sent to the alien homeworld – in many cases, years before Ender is even born. In this case the crews are already sacrificed as soon as they leave, much like Ender himself is already sacrificed as an exceptional child – a 'Third' (Card 1991: 15) – before he is born. However, what is not made clear is what happens to the human crews who survive the final battle. Are they expected to return to Earth, and if so, under what conditions? As a result of the vast distance to the alien homeworld, and the effects of relativity, it is certain any surviving crew members will outlive their friends and families, and will return home to a much changed world. So even if they do survive, their sacrifice as such continues to the end of their days, for they can never hope to return to the life they once had.

This leads us then to the question: why send humans at all? To all intents and purposes, the ships sent to the alien homeworld function as drones, much like our modern-day equivalent. There are clear parallels here between the remotely piloted spaceships sent to fight distant aliens, and modern-day Predator and Reaper drones used to kill distant targets in foreign lands. These same drones have their origins in the Vietnam War, with the Firebee and Fire Fly drones (later renamed Lightning Bugs) deployed extensively during the period (Schuster 2013). Though unmanned aircraft such as the Sopwith AT (Aerial Target), and the OQ-2 'Dennymite' Radioplane had emerged long before the Vietnam War, it wasn't until Vietnam that the technology was first deployed en masse and with some degree of success. Though little was made of the drone programme at the time, Card engages directly with the discourse surrounding drone technology and the military thinking behind its use. While they

were mainly used for reconnaissance purposes in Vietnam, the logic of drones already implies their use as frontline weapons of war.

There remains then the question of just why the International Fleet (I.F.) sends human crews with ships that are only to be flown remotely? One explanation might be the need to have a human back-up should a machine breakdown – a fail-safe option to guard against unexpected events. However, as we know, humans are typically far less reliable than machines, rendering this logic somewhat confused. In the case of *Ender's Game*, there is also a sense that sending human crews is something that has always been done; that to send robots alone is somehow less worthy than to send humans who have real investment in the coming battle, and are prepared to die on behalf of the state. This then suggests that there is something distinctly 'human' about war, and that to send robots somehow devalues the act of war, or renders it unreal. But then, what value does the loss of human life provide if the technology exists to produce a similar or better outcome without the shedding of human blood? Why waste humans at all, when machines do the job more effectively with decidedly better outcomes?

These questions strike at the very heart of modern thinking on drone theory, and the justification for the use of drones over sending in troops on the ground. In this respect, *Ender's Game* is remarkably prescient for it foreshadows debates that have since emerged now technology is at a point where drones can be used in battle for offensive purposes. Clearly, the use of drones undermines what we might describe as the traditional Clausewitzian logic of war between two clearly delineated sides (Clausewitz 1968). But then, in the case of *Ender's Game*, this logic has already been undermined by the fact that the humans don't wish the aliens to submit, but rather seek to annihilate them completely. In these terms the mission is far closer to genocide than it is to what we might describe as a traditional act of war, for it is waged with the aim of destroying the aliens completely. This case is made clear when we discover that during the original war between the two sides, the aliens stopped fighting as soon as they realised that humans were 'thinking' beings (Card 1991: 323). This then suggests that the war Ender and his companions engage in is a complete fabrication – as is the justification for the capture and abuse of the children, and the war footing that the Battle School

itself implies. Though the novel does not engage with these issues directly, the suggestion here is that the war against the bugs is less about the war itself, and more about the threat – or potential threat – posed by the bugs, much like the threat posed by the enemy and the criminal in the biopolitical rhetoric of the modern-day state.

However, unlike traditional weapons of war, the danger of using drones is that they can be deployed and used in incremental steps outside of a formalised war setting. What may start as a reconnaissance mission over a foreign land can soon lead to targeted killings, such as we see today. And yet such a leap leaves little scope for response outside of a formal declaration of war. As we have seen in the case of deployments in Syria and Afghanistan, the use of drones can be used to vastly extend the reach of a sovereign state, such that they are able to effectively kill targets outside of a war setting. This has led to widespread debate within the international community with states such as the US and the UK claiming the ‘unwilling or unable’ doctrine in order to justify the use of force in states that are unwilling or unable to bring the accused to justice (Egan 2016; Wright 2017).

In this context, ‘justice’ is a somewhat loaded and ambiguous term that exposes many of the paradoxes and contradictions to be found in modern-day politics and international law. Were a terrorist operating in a western state, they would be detained as ‘criminals’ and tried and prosecuted within the formal legal justice framework. However, given their location outside of the jurisdiction of western criminal justice, they are instead deemed ‘enemies’ and treated as such – as if they were soldiers fighting in a war. Here, ‘justice’ as delivered by drone pilots is summary execution without trial, with significant collateral damage including countless civilian deaths. The alternative, as waged primarily during the Bush administration, was a ‘justice’ based on indefinite incarceration and torture within the likes of Guantanamo Bay.

While the US and its allies have made a determined case for the use of drones, at least in the short term, there remains the issue of where one draws the line. How far can a state extend the use of drones without a formal declaration of war? At what point can or should the international community step in? These questions have no simple answers, and are not within the scope of this article.

However, it is significant that even starting with the original short story, Card poses questions that are very close to those we are grappling with today. There even remains the question of just why we employ drone operators at all. If computers control and fly the drones, and if algorithms select targets and guide missiles to the targets, what role does a human have save as an alibi for complete computer control? Why should a human reject any target suggested by a computer program that is working specifically for the purposes the military has set it to? If the technology exists to perform the task it is made for, *why wouldn't you* use it for said purpose?

A similar argument is made by Laurie Calhoun when she argues that there is a certain economy to targeted killing, based on the fact that 'The business of UCAV operators is to kill. If they are not killing [...] then the various governmental agencies which support their work [...] become dispensable' (Calhoun 2015: 265). To some extent, this is an extension of the logic of all weapons as the technology already implies its use – either directly, or as a form of deterrence. In this respect, the task of the drone pilot is not to make a decision, but rather to do the job they are employed for, and to respond as the machine tells them. This then implies a further problematic associated with purpose and value for money. Just as we have seen with the issue of body counts during the Vietnam War, the question of drone pilots and success itself suggests the need for pilots to demonstrate their value as employees based on criteria that can never be truly measured, except in terms of number of hours logged and number of terror suspects killed.

In *Ender's Game*, Card avoids many of the political and legal issues surrounding the use of drones by situating them in a strictly 'us' (humans) vs 'them' (aliens) scenario, where issues of human rights and sovereign power don't come into play within the bounds of an extra-terrestrial context. Yet as we have seen, at the end of the novel Ender discovers that his success has led to the near eradication of an alien species, and he is overwhelmed with guilt. The novel ends with Ender taking the last remaining queen to safety where she can start a new colony. While Ender may be blocked from returning to Earth to resume a normal human life, his exclusion is also indicative of a wider problem with drone technology, and the logic of the drone applied to a domestic setting. After all, once drones are used to destroy a far-off enemy, there remains the possibility that the same

technology might then be applied closer to home. If the technology exists, and already works, then there will always be the temptation to put it to some other use.

This theme comes up time and time again in the science fiction novels of the Vietnam period, and is a debate that continues to this day. In the specific case of drone technology, Kristin Bergora Sandvik cites how drone manufacturers even now market drones to the civilian sector based on their unlimited potential – with ‘open-ended possibility’ seen ‘*as a value in itself*’ (Sandvik 2016: 47; emphasis in original). According to Sandvik, this same potential also implies, and therefore also paves the way for, armed civilian drones further down the line. Thus in this case, technology already pre-empted itself, suggesting not only the purpose it is put to, but also the purpose it *could* be put to as part of a much wider discourse linking technology with notions of progress and development, even if such advances are not necessarily for the public good.

### **A Question of Responsibility**

We come then to the question of the robot and the responsible machine. As we know, machines are programmed to respond and behave in a certain way, but what happens when they behave in a way that is unexpected? This is particularly interesting when we then come to reverse the question and wonder just how far a human can be responsible when they are themselves the product of machinic output. As we have seen with the example of Ender Wiggin, there is the question of just how far we can extend the logic of responsibility for any form of behaviour, human or otherwise, when it is so deeply rooted in complex interactions far removed from the singular individual.

This case is particularly relevant in light of John Kessel’s suggestion that *Ender’s Game* is constructed as a story of ‘guiltless genocide’, in which Ender is painted as ‘morally spotless’, and that Card proposes a philosophy in which ‘the morality of an act is based solely on the intentions of the person acting’ (Kessel 2004: 81). However, Kessel’s case doesn’t really stand up to scrutiny in light of the fact that Ender is deceived throughout the novel, and is situated within a network of complex human and machine interactions from which he cannot escape. Here, Kessel argues that intention is



key to Card's philosophy, suggesting that Ender is guilt-free because he never intends to kill Bonzo or Stilson, and never intends to enact genocide on an entire alien race. However, Kessel's argument is far too reductionist, focusing on the binary of guilt versus non-guilt, neglecting the fact that each of Ender's guilty acts is manufactured by the computer and the Battle School governors. In each of the cases Kessel cites, we must ask ourselves: what other choice does Ender really have? Does he even have a choice at all?

We return then to the question of the machine and its pervasive influence over the course of events. Right from the very start, Ender is tracked via an electronic monitor chip, and is then taken from his parents and placed within a completely self-contained computer-monitored environment. Thus every aspect of his being is tracked and located within a surveillance network, to the extent that all of his human outputs (his behaviours) are to a greater or lesser extent shaped by others. In such a case, Ender himself can be read as a form of machine, or biological robot, for he has very little freedom and is consistently the subject of outside control, be it by the Battle School governors, whose commands are mediated by the machine, or by the Battle School computer directly. Any freedom he has – or thinks he has – to transgress the system or break the boundaries of his prison-like environment are in fact fostered as a means of ultimately encouraging his compliance and location within the computer network. By breaking the rules placed upon him, so Ender recreates rules and repeats them, such that the original sovereign decision is referred back to time and time again much like 'the apparent paradox of festivals', detected by Gilles Deleuze, where their annual repetition (such as Bastille Day) commemorates an event that, in itself, is 'unrepeatable'; instead an uncanny stasis occurs: 'repetition interiorizes and thereby reverses itself' (Deleuze 1994: 1). In this sense, Ender's freedom to transgress certain permissible boundaries can be seen as a means of actually strengthening the rule of the hidden sovereign. So while his minor triumphs give him a sense of encouragement, and a sense that he is free, at the same time they keep him far removed from any form of major transgression that might undermine the system within which he is located. At no point, for example, does Ender ever feel the need to rebel against his captors or unite the children against the Battle School governors. Thus in this sense, his transgressions are as much an act of participation as

anything else, for they serve to reinstate the rule and maintain his position within a much wider rules-based framework.

We come then again to the question of whether or not Ender is actually responsible for any of his actions, either as a child murderer, or as the military leader responsible for the genocide of an entire alien race. If we read Ender as a form of human robot, then clearly he is not responsible, nor indeed accountable for any of his actions, for he has been created to behave in such a way. And yet by preventing Ender's return to Earth there is a sense here that the state is in some way holding him to account for his actions. But why should this be the case? He has been shaped and moulded to be the perfect human weapon, and yet is in a strange way still held to account for doing exactly as he is ordered. There is a sense then here that the state (or rather the I.F.) is using Ender as a means of deferred responsibility, shifting the focus from those making the decisions to the actor who carried out the acts on the governors' behalf. This is a significant shift, and is reminiscent of similar ethical conundrums posed by the guilt or otherwise of Nazi prison camp guards and US pilots fire-bombing Japan – where the victorious bomber pilots were not tried at Nuremberg, which they would have been had the US been on the losing side. Indeed, former US Secretary of Defense Robert S. McNamara makes this same point in an interview with the film director Errol Morris (2004). To expand upon this line of reasoning, we must wonder: is the ultimate doomsday weapon, the nuclear warhead, ever the responsibility of a single man or woman pressing the 'red button', or rather does the responsibility rest with the entire population – the entire community – that allowed circumstances to gather to the point at which the red button can be pressed? If Ender is the one effectively pressing the red button on the aliens, it is only because he has been placed in such a position to do so, and has been given the orders and the tools with which to fight.

### **The Human Alibi**

This question of machinic responsibility has many serious implications for our modern-day world, and feeds into current debates surrounding drone warfare. Though in many cases, machines can be

said to be more ethical than humans in a battlefield situation (insofar as they make better targeting decisions and their decision-making is not influenced by stress and fatigue), there remains a tension between the human and the machine such that the military has thus far steered away from taking the human out of the loop completely.

This tension is noted by Grégoire Chamayou in *Drone Theory* (2015) in which he looks at the nature of human combat and the distinction to be drawn between the soldier and the assassin. He cites for example the enemy exposed in an un-warlike situation, such as caught naked, or smoking away from the battle (Chamayou 2015: 195). Though a soldier should shoot an enemy caught thus, many will choose not to, and the fact it is even presented as a choice marks a distinctly human element in the decision-making process, especially in terms of our symbolic relationship with war. Here, the soldier fights and shoots other soldiers who are marked as such on the battlefield, but has the human option not to shoot these same marked soldiers if they are unexpectedly defenceless or needlessly exposed.

However this distinction is not without problems – not least the issue of defining the soldier, the enemy and the battlefield in a world of terrorists, unmarked combatants and urban battle-spaces. Nevertheless, despite Chamayou's weakness in this area, his theory remains an interesting one for the ways it explores the decision-making process that in Chamayou's view at least distinguishes the human from the robot. For Chamayou, the question of whether or not to shoot brings the soldier to a very human conundrum, namely: 'It is a matter of remaining a combatant and not becoming, in his own eyes, an assassin' (Chamayou 2015: 199). This decision then takes on a quasi-religious, philosophical tone as Chamayou frames the question not as a matter of soldierly duty but rather a question of becoming such that 'the crucial, decisive question is not "What should I do?" but "What will I become?"' (199).

This problematic can be defined for Chamayou in strictly human terms: a robot simply wouldn't make this distinction to start with. In the case of a war robot (or a fully-autonomous drone), the machine would act based on a pre-programmed set of decision-making processes designed to

categorise life and various levels of threat. In the case of the soldier smoking, there can be no doubt that the robot would kill the exposed soldier – it makes perfect sense – and yet in this same act, we see something of the human element stripped from warfare when robots take over completely. This then takes us back to the key question in the robotisation of war, that being the ‘*decision about the decision*’ – the choice of a single value that fixes the parameters of all future automatic decisions in a particular sequence’ (Chamayou 2015: 216; emphasis in original). This, according to Chamayou, ‘is the equivalent of signing a single but infinitely repeatable death sentence’ (216) – much as we can imagine with the war robot programmed to kill all ‘enemy soldiers’, who is unable to frame that human decision around what makes an ‘honourable’ or ‘human’ death on the battlefield. The problem emerges when robots carry out their orders completely to the letter, regardless of extenuating circumstances and other factors. This is particularly important for Chamayou who argues that ‘contrary to what is suggested by science-fiction scenarios, the danger is not that robots begin to disobey. Quite the reverse: it is that they never disobey’ (216-7). For Chamayou then, transgression, or disobeying the rule (i.e. ‘kill all enemies’), would seem to be a distinctly human act. Robots are robots because they act unquestioningly. Humans are humans because they have scope to err, and even though it may be rare for them to act outside of their core programming, the possibility always remains, and can be seen as a key difference between the human and the machine.

But then, why should this be important? After all, soldiers are trained such that they are expected to perform in a robotic fashion, for failure to do so might ultimately put other soldiers’ lives at risk. If soldierly training tends towards the robotic, then why not replace soldiers with robots completely? The logic of warfare would certainly seem to suggest that robots could and should be the final destination for warfare, and as we have seen already, the technology is such that it already implies itself as the final destination. In the case of *Starship Troopers* and *The Forever War*, both protagonists operate within a restrictive environment such that they are both ultimately controlled by machines anyway. Just like Ender, they both serve a role as an alibi for what is ultimately a tendency towards the machine. If any of the characters were to err, or break from their programming, it is clear that a computer would step in to either make the decision for them, or bring their service to an end,

such as with the battle computers that can remotely detonate their suits, as with the case of Mandella in *The Forever War*.

This leads us to wonder, then, why the need for a human alibi at all? Why shouldn't we just be done with the human element completely? As we know, there remains in all forms of warfare an element of asymmetry; a drive towards gaining an advantage over an adversary such that one side's arms beat another's. Were a robot soldier to take to the battlefield – whether controlled by a human or not – there remains a certain element of unfairness or asymmetry such that it shouldn't really matter whether the robot is making a human decision or a robotic one, as a robot is simply that much better at shooting and thinking tactically than a human. Consider the example of a drone armed with a machine gun. A human would struggle to fire such a weapon accurately from a moving vehicle; yet when mounted on a computer-controlled drone, a common assault rifle is transformed into a sniper rifle with incredible accuracy, far surpassing anything a human could hope to achieve (Singer 2009: 31).

This leads us to return to the example of the enemy soldier caught smoking. While it may seem morally human or humane to choose not to shoot the enemy soldier, the robot is so efficient that even giving that enemy soldier the chance to run away is not really giving him much of a chance at all: the asymmetry already exists and is such that his chance of survival is remote, whether he is ready to face the robot or not. In this case, the technology of the robot warrior exposes the ethical question of shoot or not-to-shoot for the artificial construct that it really is. In such a situation, it seems clear that any human soldier should certainly shoot, for not to shoot might put another allied life in danger in the future, and the choice not to shoot is a risk that seems ludicrous in all normal logical determinations.

### **Staying in the Loop**

*Ender's Game* is a fascinating book and continues to show its relevance to this day. Its use of drone warfare in particular is ahead of its time, and can be mapped as part of a logical extrapolation of science fiction theories demonstrating the increasing de-humanisation – or rather *robotisation* – of the

human. Just as with Chamayou's argument comparing the human soldier with the robotic assassin, Ender Wiggin is forced to confront the same dilemma as he undergoes a transformation from a child soldier playing at war to the stark reality of genocide against a distant alien foe. This transformation haunts Ender just as it continues to haunt our modern day view of autonomous weapon systems and targeted killing, compelling us to keep the human 'in the loop', even if the 'loop' only serves as an alibi for the ethical dilemma posed by complete robotic control.

While at first glance, technology is presented as the problem for which a human controller is needed, the control that any human is able to exert is in reality minimal, and is itself situated within a framework of automated (human) responses, such that the human controller is as much a robot as the machine they seek to control. Here then, drone technology serves not so much to remove the human, but rather to reveal to us the blurring of what were once stable oppositions, demonstrating that the distinction between the human and the robot, the natural and the artificial, and the master and the slave, are not as clear as they may seem, and crucially, perhaps never were.

## **Works Cited**

- Calhoun, Laurie. 2015. *We Kill Because We Can: From Soldiering to Assassination in the Drone Age*. London: Zed Books.
- Card, Orson Scott. 1991. *Ender's Game*. London: Atom.
- Chamayou, Grégoire. 2015 (2013). *Drone Theory*. Trans. Janet Lloyd. London: Penguin.
- Clausewitz, Carl Von. 1968 (1832). *On War: Vol. 1*. Trans. J.J. Graham. London: Routledge and Kegan Paul.
- Deleuze, Gilles. 1994 (1968). *Difference and Repetition*. Trans. Paul Patton. London: Bloomsbury.

- Egan, Brian J. 2016. *International Law, Legal Diplomacy, and the Counter-ISIL Campaign*. US Department of State. <https://2009-2017.state.gov/s/l/releases/remarks/255493.htm> (accessed 23 August 2022).
- Haldeman, Joe. 1997 (1974). *The Forever War*. London: Gollancz.
- Heinlein, Robert A. 1959. *Starship Troopers*. London: Hodder & Stoughton.
- Kessel, John. 2004. 'Creating the Innocent Killer: *Ender's Game*, Intention, and Morality'. *Foundation* 90: 81–97.
- Morris, Errol, dir. 2004. *The Fog of War: Eleven Lessons from the Life of Robert S. McNamara* London: Columbia TriStar Home Entertainment.
- Sandvik, Kristin Bergora. 2016. 'The Political and Moral Economies of Dual Technology Transfers: Arming Police Drones'. In *Drones and Unmanned Aerial Systems: Legal and Social Implications for Security and Surveillance*. Ed. Aleš Završnik. New York: Springer, 45–66.
- Schuster, Carl O. 2013. 'Lightning Bug War: Over North Vietnam'. *Vietnam* 25.5: 48–55.
- Singer, P.W. 2009. *Wired for War: The Robotics Revolution and Conflict in the 21st Century*. New York: Penguin.
- Wright, Jeremy. 2017. *Attorney General's speech at the International Institute for Strategic Studies*. GOV.UK. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/583171/170111\\_Imminence\\_Speech\\_.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/583171/170111_Imminence_Speech_.pdf) (accessed 23 August 2022).