Instruments of Enslavement
-
Force in Nuclear War Literature

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I

In "Thinkability," an introductory essay to *Einstein's Monsters* (1987), Martin Amis investigates the effect of nuclear weapons on the world, on language, on literature and on himself. Throughout the essay, he stresses the corruption that the weapons have brought to everything in this world; the world is poisoned, language is twisted, literature may be facing its ultimate end and Amis himself becomes sick every time he thinks about them. Moreover, their presence, even when not consciously acknowledged, slowly sickens everyone:

> Everyone is interested in nuclear weapons, even those people who affirm and actually believe that they never give the question a moment's thought. We are all interested parties. Is it possible never to think about nuclear weapons? If you give no thought to nuclear weapons, if you give no thought to the most momentous development in the history of the species, then what *are* you giving them? In that case the process, the seepage, is perhaps preconceptual, psychological, glandular. The man with the cocked gun in his mouth may boast that he never thinks about the cocked gun. But he tastes it, all the time. ("Thinkability" 11, original italics).

The taste of the weapon that may still, at any time, destroy the human species, is in all our mouths. Although the Cold War and arms race are over and the fear of nuclear war has been pushed to the background of the minds of people, there are still enough nuclear weapons operational to destroy the planet.[1] Recent efforts by the United States and Russia to diminish the number nuclear weapons seem promising, but are a long way from changing the fact that the planet can be destroyed beyond repair in one afternoon. In addition, nuclear weapon

[1] A quick survey of online resources like the Bulletin of the Atomic Scientists, Union of Concerned Scientists, the Arms Control Association and news organisations such as the BBC and the Volkskrant shows that the number of nuclear weapons in 2010 is estimated to be around 25,000, of which "7000 or so operational and deployed nuclear warheads that United States and Russia possess" (Steven Starr, "The Climatic Consequences of Nuclear War" on http://www.thebulletin.org). This number is also used by Bryan Hubbard (see works cited list), the Union of Concerned Scientists and the Arms Control Association, among others. Starr also points to studies that claim that if only a small portion of these bombs was to be used, the phenomenon of nuclear winter would make life on Earth impossible and kill the human species.

technology cannot be controlled effectively, which may lead to the nuclear armament of unstable countries or terrorist organisations. However, whether or not the nuclear weapons are actively thought about, they are still a part of reality that affects everyone, even more so when nuclear war is still a possibility.

The insanity of nuclear weapons is a recurring theme in the literature that discusses nuclear weapons, nuclear war and nuclear thinking. Without a doubt, the destructive power of nuclear weapons is insane,[2] but more often, the authors focus not on the lethal power of the nuclear weapons, but on the effects they have on the world, how they came to be and how they might be used. Amis points out that nuclear weapons distort logic and language ("Thinkability"10), and how their existence is full of paradox: "In a way, their most extraordinary characteristic is that they are man-made. They distort all life and subvert all freedoms. Somehow, they give us no choice. Not a soul on earth wants them, but here they all are"(8). The existence of nuclear weapons is in itself a paradox, since they are created by those who do not want them. Even worse, they resist disarmament because of their incredible power. Now that they exist, nobody seems able to control them or destroy them, since everyone fears that they will be used against them. Because of their immense power, nuclear weapons have generated a realm their own, in which conventional language and thought falter. Because of their unprecedented power, a new discourse had to be developed to deal with the possibility of world destruction by human action; although weapon power has increased throughout history, the development and use of the atomic bomb is unique in its scope. In "Thinkability" Amis argues: "Our time is different. All times are different, but our time is *different*. A new fall, an infinite fall, underlies the usual – indeed traditional – presentiments of decline." (*Monsters* 22. Original italics). The long-anticipated end of the

[2] Authors such as Frances Ferguson and Martin Amis repeatedly stress that nuclear bombs do not simply kill people, but produce overkill: they can kill them by any of a dozen different effects such as heat, blast, electromagnetic pulse, radiation and fallout.

world can now be consummated by human weaponry in a matter of days, blending the present with the future: it could all be over at any moment.

Paradoxically, the historical uniqueness of nuclear weapons demands a new discourse, but their exceptional destructive capabilities makes it impossible to talk about them. Since they are without historical context and beyond the reach of imagination, nuclear weapons cannot be accurately evaluated. The unparalleled destruction of a nuclear war defies scientific predictions, which can only put forward speculations and beliefs as to what will happen. Jacques Derrida argues in his famous essay *No Apocalypse, Not Now (full speed ahead, seven missiles, seven missives)* (1984) that nuclear war is a non-event: "Unlike other wars, which have all been preceded by wars of more or less the same type in human memory (and gunpowder did not mark a radical break in this respect), nuclear war has no precedent. It has never occurred, itself; it is a non-event" (23). Because of this, nuclear war can only be looked at in text. Derrida writes: "[T]he phenomenon is fabulously textual also to the extent that, for the moment, a nuclear war has not taken place: one can only talk and write about it" (23). Yet, because of its magnitude, nuclear war is not just a fantasy: even as a fiction, it affects the world. Since nuclear war would end humanity, along with history and literature, the possibility of it affects the world thoroughly: "'Reality,' let's say the encompassing institution of the nuclear age, is constructed by the fable, on the basis of an event that has never happened (except in fantasy, and that is not nothing at all), an event of which one can only speak, an event whose advent remains an invention by men (in all the senses of the word "invention") or which, rather, remains to be invented" (Derrida 23-4). Nuclear war shapes reality before it has come into reality. The end of the world through nuclear war, only as a suggestion, has the power to bring the world into the reality of nuclear weapons.

During the Cold War, the threat of nuclear war dominated global politics. In order to prevent the use of nuclear weapons, the Soviet Union and the United States built even more

nuclear weapons to deter the enemy from attacking. The arms race, as a part of the deterrence policy, is one of the most obvious and twisted effects of nuclear weapons. The existence of nuclear weapons prompted fear of nuclear war, which led to the development of more and stronger nuclear weapons to prevent the enemy from attacking. Martin Amis writes:

> What is the only provocation that could bring about the use of nuclear weapons? Nuclear weapons. What is the priority target for nuclear weapons? Nuclear weapons. What is the only established defence against nuclear weapons? Nuclear weapons. How do we prevent the use of nuclear weapons? By threatening to use nuclear weapons. And we can't get rid of nuclear weapons, because of nuclear weapons. The intransigence, it seems, is a function of the weapons themselves. Nuclear weapons can kill a human being a dozen times over in a dozen different ways, and, before death – like certain spiders, like the headlights of cars – they seem to paralyse. ("Thinkability" 8)

The intransigence that Amis attributes to the weapons is evident in deterrence theory. Diplomacy, language and logic are distorted by the threat of nuclear apocalypse, and the human race seemed unable to avert the looming disaster. Michael McGwire states in his essay "The Dilemmas and Delusions of Deterrence" (1985) that deterrence "tends to encourage exaggerated rhetoric, to favor intransigence (as a demonstration of resolve), to discourage serious negotiation and the search for compromise, and to value a bellicose posture. Moreover, while creating the conditions that make war more likely, it fosters the delusion that war itself is not the danger. And in that delusion lies the real danger of deterrence" (qtd. in Zins 132). The increase in nuclear weapons does not reduce the threat of war, but only increases it.

Deterrence policy has generated enormous amounts of texts, both to defend and criticise it. Apart from the many non-fictional essays and books that have appeared on the

subject, two acclaimed fictional works focus upon the insanities and dangers of deterrence theory: Stanley Kubrick film *Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb* from 1964 and Arthur Kopit's play *End of the World*, written between 1981 and 1983 (Zins 129). Of the two, Kopit's play focuses more on the thought and language of deterrence, while *Dr. Strangelove* shows the absurd consequences of deterrence policy, while criticising the male nuclear discourse that created it. In *Dr. Strangelove*, general Jack D. Ripper initiates a nuclear attack on the Soviet Union by misusing "Wing Attack Plan R," which provides high military commanders to take control in case the higher authorities have been killed in a nuclear attack.[3] The B-52 bomber planes that are kept in the air within a two-hour reach of the Soviet Union receive the code and move to attack. Ripper ensures that communication becomes impossible by initiating the protocol that only allows messages with a specific code to be received and cuts communication with other air bases. Unable to recall the airplanes, President Merkin Muffly contacts the Soviet Premier Dimitri Kisov to try and find a solution. However, the Soviet Premier informs him that the Soviet Union has built a doomsday device, a weapon that will destroy the entire planet if the Soviet Union were to be attacked, as the ultimate deterrent. Dr. Strangelove is brought into the War Room and explains to all present, the President, the officials and the Russian ambassador, how it works. When the President asks if it is possible to make a doomsday device and make it impossible to "untrigger," Strangelove answers:

> Mr. President, it is not only possible, it is essential. That is the whole idea of this machine, you know. Deterrence is the art of producing in the mind of the enemy... the *fear* to attack. And so, because of the automated and irrevocable decision making process which rules out human meddling, the doomsday machine is terrifying. It's simple to understand. And completely credible, and convincing.

[3] The source for the following summary and quotes is the script provided at The Kubrick Site, to be found at http://www.visual-memory.co.uk. See the works cited list for a full reference.

The President and Premier agree to work together to stop the attack at all costs. The air force base of general Ripper is attacked, but Ripper kills himself before he can be asked the transmission code to call the planes back. Although most planes are shot out of the air, one particular bomber escapes. When Ripper's executive officer Lionel Mandrake is finally to acquire the code from Ripper's doodles, it becomes clear that the last plane's communications have been destroyed by the Russian defences. Because of the attacks, the plane would not reach of its targets, but finds another target, where the Soviet defences are not prepared for them. As a last glimmer of hope, the attacks have also disabled the bomb doors, but Major T. J. "King" Kong is able to open them and drops out of the plane, together with the bomb. With global destruction now imminent, Dr. Strangelove suggests that a part of the population, selected for their health, skills and youth, and including the leading military officials and himself, should hide in the mineshafts, where they must live a hundred years to repopulate the surface when it becomes accessible again. In order to achieve this, he proposes a ratio of ten females to each male, selected for their highly stimulating sexual characteristics. The film then ends with a long series of nuclear explosions, while Vera Lynn's "We'll Meet Again" plays in the background.

Dr. Strangelove abounds with grotesque and absurd jokes, which ridicule the language and logic of deterrence policy and the incompetence of those in power. In both *Dr. Strangelove* and *End of the World¸* the experts display a lack of knowledge that is shocking. Because of the absence of proof and records, the best knowledge available comes in the form of opinions. Both Kopit and Kubrick make it clear that the opinions and beliefs of the ruling elite are not necessarily right; both parody the experts and emphasise their incompetence. For example, the President in *Dr. Strangelove* is unaware of most of the military decisions that have been made, including some he has officially approved of. Despite the actions of the entire War Room and the Soviet Premier, one plane still manages to set of the doomsday

device and destroy the entire world. *Dr. Strangelove* presents many more amateurish, stupid and delusional characters, like general Ripper, who has started his plan because he "can no longer sit back and allow Communist infiltration, Communist indoctrination, communist subversion, and the international Communist conspiracy to sap and impurify all of our precious bodily fluids," a theory that is a result of his impotence, or Captain Mandrake, who is blatantly unobservant with regard to Ripper's plans. When he finally finds out the code and is transformed into the smart man of the day, he meets similar dumbness while trying to communicate the code with the President. As a rule, the opinions of the characters are misguided. The most intelligent man in the film, Dr. Strangelove himself, is connected with eugenics, elitism and Nazism. *Dr. Strangelove* suggests that those in control of nuclear weapons are incapable of handling them and that policy is dominated by delusional beliefs.

The fact that opinions and beliefs dominate the nuclear discourse in the absence of a historical and scientific context is also stressed by Derrida. In his opinion, there are no experts in the field of nuclear war, as all knowledge concerning nuclear war is an invention, or fiction:

> Nuclear war does not depend on language just because we can do nothing but speak of it – and then as something that has never occurred. It does not depend on language just because the 'incompetents' on all sides can speak of it only in the mode of gossip or of *doxa* (opinion) –and the dividing line between *doxa* and *episteme* starts to blur as soon as there is no longer any such thing as an absolutely legitimizable competence for a phenomenon which is no longer strictly techno-scientific but techno-militaro-politico-diplomatic through and through, and which brings into play the *doxa* or incompetence even in its calculations. There is nothing but *doxa*, opinion, 'belief' (*No Apocalypse* 24, original italics).

This fragment is part of Derrida's larger argument, which advocates the need for literary critics to join the nuclear debate. Because of the textual nature of nuclear war and its close affiliation with fiction, the expertise of literary critics might be more valuable than expertise in the fields of science, and is certainly as important, since the real effects of nuclear war cannot be fathomed yet. In addition, the debate is based on beliefs and opinions, requiring a thorough knowledge of rhetoric to analyse the debate.

However, even fiction may not be able to imagine nuclear war. In response to the atomic bombs that were dropped on Hiroshima and Nagasaki, artists and critics struggled with the representation of such terrible destruction. Although not specifically a problem of nuclear bombs, but of destruction and atrocity in many of its forms, the idea of unrepresentability is closely linked to nuclear weapons. In search of the most effective representation, artists have experimented with a wide range of artistic modes, from the metaphorical displaced novel to the documentary interview, resulting in works such as *City of Corpses* by Ôta Yôko (1948), Hara Tamiki's *Summer Flowers* (1949), John Hersey's *Hiroshima* (1946), Ibuse Masuji's *Black Rain* (1966) and Alain Resnais's 1959 film *Hiroshima Mon Amour* (Dorsey). Despite its sometimes powerful attempts to portray the effects of the nuclear bombs, the bomb literature of Hiroshima and Nagasaki and other literature of this kind is still conventional in the sense that it reflects upon events that have occurred. Especially when concerned with events such as these city bombings, literature is part of process of cultural embodiment. By writing about the bombings, they are incorporated into culture and thereby into the human consciousness. According to Derrida, the internalisation of deaths is the *raison d'être* of culture: "An individual death, a destruction affecting only a part a society, of tradition, of culture, may always give rise to a symbolic work of mourning, with memory, compensation, internalisation, idealization, displacement, and so on. In that case there is monumentalization, archivization and *work on the remainder*, *work of the remainder*" (28, original italics). This

process allows the mourning of deaths that have taken place as well as the anticipation of deaths to come; both can be symbolically dealt with by means of literature and art. Derrida states: "[T]he burden of every death can be assumed symbolically by a culture and social memory (that is their essential function and their justification, their *raison d'être*)" (28). However, he makes the distinction between individual deaths and nuclear war, since an all-out nuclear war would not only destroy lives, but destroy culture as well. The destruction brought about by nuclear war cannot be interpreted in hindsight and the death of the human race and its culture cannot be internalised the same way other disasters can.

So although the process of cultural embedding can be found at the core of any form of art, especially those in any way concerned with death or the end, nuclear war cannot be internalised likewise. All nuclear war literature anticipates an event that resists embedding in cultural context, for two reasons: first, the horrors brought about by nuclear weapons are in itself unrepresentable; second, it is a non-event, unprecedented and therefore without cultural context. Moreover, if nuclear war were to take place, there would be no culture left to record it afterwards. Despite the impossibility of symbolising and incorporating the death of the world, literature must anticipate its end, like humans facing death. This necessity leads to the paradox of representing the unrepresentable, writing the unwritable, thinking the unthinkable, in order to imagine nuclear apocalypse. Derrida writes:

> This only 'subject' of all possible literature, of all possible criticism, its only ultimate referent, unsymbolizable, even unsignifiable, this is, if not the nuclear age, if not the nuclear catastrophe, at least that toward which nuclear discourse and the nuclear symbolic *are still beckoning*: the remainderless and a-symbolic destruction of literature. Literature and literary criticism cannot speak of anything else, they can have no other ultimate referent, they can only multiply their strategic maneuvers in order to assimilate that unassimilable wholly other. (28, original italics)

The "remainderless and a-symbolic destruction" that may be anticipated in the fiction that is nuclear war must be recognised by literature as its ultimate end and therefore dominates all literature as the "ultimate referent."

Perhaps it is due to the unwritability of nuclear war that nuclear war did not become a major literary subject. In spite of its political urgency, global interest and dramatic possibilities, "the subject of nuclear war has, up till now, mainly served the purposes of science fiction; only rarely (…) have science fiction authors risen above the lowest common denominator of that genre" (Schwenger, 34). Especially throughout the 1960s and 70s the public interest in nuclear weapons stood in sharp contrast to the role that they played in international politics, scientific research and military development, and taking into account the increasing arsenals of the Soviet Union and the United States during the arms race. In addition to the unwritability of nuclear war literature, the lack of response to the arms race during this period can be partially explained by the secrecy surrounding nuclear weapons and the creation of 'nukespeak,' a language that excluded non-experts from nuclear weapon discussion (Hubbard 41-52). After the Cuban missile crisis in 1962, which admittedly generated intense yet short-lived discussion of nuclear weapons, a large number of treaties that limited nuclear weapon testing, manufacturing and nuclear weapon firing sites tempered public anxiety (Hubbard 50).[4]

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[4] In the introductory evaluation of nuclear criticism of his thesis "Nuclear Criticism after the Cold War," Bryan Hubbard lists the treaties that calmed the anxiety towards nculear weapons: "In 1963 the Atmospheric Test Ban Treaty (or Limited Test Ban Treaty) took effect. A 'hotline' agreement between the White House and the Kremlin began the era of the red phone. The Outer Space Treaty prohibits nuclear weapons and other weapons of mass destruction from being stationed in outerspace and forbids military bases and testing on 'celestial bodies' (Kurtz, 1988, p. 283). The Treaty of Tlatelolco prohibits testing, use, manufacturing, production or acquisition of any nuclear weapon by Latin American countries. The Nuclear Non-Proliferation Treaty of 1968 prohibits the transfer of nuclear weapons (technology of control) to any recipient from current nuclear power states. The Sea-Bed Treaty of 1971 prohibits the placement of nuclear weapons in the ocean floor. The Strategic Arms Limitation Treaty (SALT) I limits the number of anti-ballistic missile sites. These treaties provide one reason public passivity grew toward atomic technology in the 1960s and through the 1970s." However, Hubbard also stresses throughout the thesis that the dangers of nuclear weapons have not been neutralised tot his day.

Even those who wanted to write about nuclear weapons, despite, or because of their absence in the public mind, may have been unable to respond to them because of the numbing phenomenon, which is closely related to the principle of unthinkability discussed before. Peter Schwenger writes in his article "Writing the Unthinkable," published in 1986:

> If we can overcome this reluctance to think about the subject, being willing does not mean that we are able: nuclear war is unthinkable in one sense because none of the images that characterize our previous experiences is adequate to this one. What images we can come up with are so painful, so unacceptable, that they, or the emotions associated with them, are blocked; and this, properly speaking, is the numbing phenomenon. (35).

Unable to react to the threat of complete destruction, the mind loses the ability to control itself. Although Schwenger considers this an "emotional defense system" (35), he also recognises that it negates the ability of the mind to actively alter its future. Schwenger quotes Robert Jay Lifton on the dangers of the numbing phenomenon: "When numbing occurs, the symbolizing process – the flow and recreation of images and forms – is interrupted. And in its extreme varieties, numbing itself becomes a symbolic death: One freezes in the manner of certain animals facing danger, becomes as if dead in order to prevent actual physical or psychic death" (Lifton in 1982, qtd. in Schwenger 35). The threat of nuclear war, nothing less than the death of every person on the planet, induces numbing on a global level, rendering people unable to react. Although physically healthy, the mind is disrupted and is unable to perform its normal tasks; the integration of events into the historical and culture context is thwarted by the destructive capabilities of nuclear weapons.

The numbing phenomenon is the main theme in one of the few novels that concerns itself with nuclear war explicitly in the decade after the Second World War. Nevil Shute's *On the Beach* depicts the citizens of Australia awaiting the arrival of the fallout that will

inevitably kill them, as it is slowly carried south from the Northern hemisphere, where nuclear war has destroyed everything. As early as 1957, Shute imagined how people react when they face certain death: they spend their last months waiting for death, while most go on living their life as they were used to. Still, the threat does not leave them unaffected, as everyone develops his or her personal craziness: “everyone was going a bit mad these days, of course” (176. Also 109 and 202, 204). Although at the beginning of the book people expect that there will be around half a year left before the heavy particles of the fallout reach and kill them (Shute 65), no one seems to be thinking of undertaking anything to stop it or try and survive. In fact, the one scientist that hopes to find proof that the fallout might be decreasing in intensity faster than expected is distrusted and disliked by most (143-5). Step by step, society slows down and comes to a halt, as its inhabitants lose the ability to think creatively. The numbing in *On the Beach* takes place on a national level and indicates that when facing death, people are unable to react and simply move on, like a cart that rolls downhill, unable to alter its course and reducing speed till it stops.

The imminent destruction of the human species cannot be simply accepted. As a result of this, many characters are in denial one way or another. For example, Dwight Towers, the U.S. submarine commander, self-consciously buys gifts for his family in West Mystic, Connecticut and pretends to return there when his duty is finished. When Moira asks him about his family, he starts talking as if they were alive. Shute writes: “She had known for some time that his wife and family were very real to him, more real by far than the half-life in a far corner of the world that had been forced upon him since the war. The devastation of the northern hemisphere was not real to him, as it was not real to her” (108). Their minds are unable to integrate the new information, which leads them to act out the life they had before the threat was there. Similarly, Peter and his wife make plans for their garden including a vegetable garden that will save them money next year:

> They went on happily planning their garden for the next ten years, and the morning passed very quickly. When Moira and Dwight came back from church they were still at it. (…)
>
> The girl glanced at the American. 'Someone's crazy,' she said quietly. 'Is it me or them?'
>
> 'Why do you say that?'
>
> 'They won't be *here* in six months' time. I won't be here. You won't be here. They won't *want* any vegetables next year.'
>
> Dwight stood in silence for a moment (…). 'So what?' he said at last. 'Maybe they don't believe it. Maybe they think that they can take it all with them and have it where they're going to, some place. I wouldn't know.'
>
> (…)
>
> She stood in silence for a minute. 'None of us really believe it's ever going to happen – not to us,' she said at last. 'Everybody's crazy on that point, one way or another.' (Shute, 113, original italics).

Most of the characters know that they will die, but are unable to act accordingly, and unable to believe it (88, 202-5). The threat of the end of all life, unthinkable but inescapable, forces them to treat the subject matter-of-factly, simply as knowledge, or a direct their attention to other, more comprehensible things. As the novel progresses, they evoke empathy when attending their daily concerns and psychological problems in the face of complete eradication, while at the same time they become like automated beings; puppets that move out of habit, slowly losing initiative (262), trying to make the most of the little time they have left without radically breaking their habits.

The passivity in *On the Beach* is closely related to a lack of control. Except for a small group represented by Dr. Jorgensen, people consider the end inevitable. Although some are

enraged by the fact that they are the victim of the war fought by others, most people express a sense of submission to the course of events:

> ‘I won’t take it,’ She said vehemently. ‘It’s not fair. No one in the southern hemisphere ever dropped a bomb, a hydrogen bomb or a cobalt bomb or any other sort of bomb. We had nothing to do with it. Why should we have to die because other countries nine or then thousand miles away from us wanted to have a war? It’s bloody unfair.’
>
> ‘It’s that all right,’ he said. ‘But that’s the way it is.’ (Shute 40)

The outward peace of mind displayed by Dwight is the norm. Although an outrage might be expected, the general attitude is acceptance. When Dwight discusses what is known of the war with two of his Australian colleagues, it becomes clear that the first bombs were dropped by smaller nations, the larger countries were unable to respond effectively since their capitals and leaders had been destroyed. In turn, what was left of the larger countries responded with more bombings, resulting in the destruction of the northern hemisphere (81-9). Counter to expectation, all of them meekly state it could not be helped. Dwight feels that he would not have been able to stop the war if he were in charge:

> ‘If that situation had devolved on me, I wouldn’t have known how to handle it.’
>
> ‘They didn’t, either,’ said the scientist. He stretched himself, and yawned. ‘Just too bad. But don’t go blaming the Russians. It wasn’t the big countries that set off this thing. It was the little ones, the Irresponsibles.’
>
> Peter Holmes grinned, and said, ‘It’s a bit hard on all the rest of us.’
>
> ‘You’ve got six months more,’ remarked John Osborne. ‘Plus or minus something. Be satisfied with that. You’ve always known you were going to die some time. Well, now you know when. That’s all.’ (88)

Yawning and stretching, as if almost asleep, they calmly discuss the responsibility of the nuclear holocaust. The unimaginable consequences of nuclear war can be discussed quietly, but only when the mind has become dull and numb.

In addition, the characters in *On the Beach* are not concerned too much with guilt or responsibility. Even the "Irresponsibles," the small countries that have started using nuclear weapons, are not condemned. It seems as though the war was anticipated, as a logical result of the existence of nuclear weapons. Indeed, the war seems to have created itself before it had to be dealt with by people. This perception, which combines the idea that nuclear war is, or was, inevitable with the feeling that the nuclear weapons somehow bring about the war themselves can be found throughout nuclear war literature, as well as nuclear criticism. In *On the Beach*, it is displayed by the general acceptance of the situation. In Amis's *Einstein's Monsters* as well as *London Fields* (1989), it is connected with the idea that the world commits suicide, or is liable to be murdered, as well as the active and corrupting role of nuclear weapons. In *Riddley Walker*, set in a post-nuclear holocaust England that is called "Inland" (30), Riddley learns that it is the desire for power and knowledge that drives mankind towards nuclear weapons, which in turn consummate the end for its inventors. In the works of H. G. Wells, the enormous development of science is not balanced by the necessary political, religious and social changes, resulting in an inescapable crisis that triggers inappropriate use of technological means that destroy the world.

Several nuclear critics have pointed out that the existence of nuclear weapons is enough to cause nuclear war eventually.[5] Among them is Bertrand Russell, who published his

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[5] Please note that 'nuclear critics' and 'nuclear criticism' do not refer solely to the discussion of nuclear weapons, texts and policy as initiated in *Diacritics*, 1984. Peter Schwenger states that: "nuclear literature predates Hiroshima" (*Writing*). Although Schwenger only aims to advocate that fiction anticipated that mankind would build weapons that can destroy the earth, I feel that nuclear criticism also anticipates Hiroshima. As pointed out by Hubbard, the nuclear criticism that is defined by the *Diacritics* of 1984 is part of a larger critical tradition that discusses the end of the world by human technology. Although *Diacritics* was highly influential and may claim the term 'nuclear criticism,' I will use the term to indicate all discussion of nuclear weapons, nuclear war and nuclear discourse.

book *Nuclear Warfare and Common Sense* in 1959. Russell investigates the nature of nuclear weapons as well as the debate surrounding them and concludes that prolonged duration of the arms race will end in war: “Our present courses lead inevitably, sooner or later, to the extinction of the human species” (28). He argues that deterrence policy requires an increase in weapon power to maintain effectiveness, but in order to justify increased financial support to nuclear weapon development, governments must propagate hostility towards the enemy (13-20):

> It follows that, while present policies continues, there will be constant fear of large-scale war and, as the facts become better known, this fear will increase. Increasing fear will lead to increasing armaments involving increasing expenditure and increasing rigidity of the social structure with continually diminished liberty. Only a constant propaganda of hate and terror will induce populations to accept the burdens involved. And with every year that passes, technical advances will make war, if it should come, more and more disastrous. (16)

It is the combination of increased weapon power and increased hostility and fear that makes deterrence policy extremely dangerous, as was also evident from Kopit’s *End of the World*. It also increases the chance of a fatal miscalculation or accident, which may be anything from a system malfunction to the use of nuclear weapons by a small country or terrorist group (the first becomes more likely because of an increased amount of weapons, the latter because of increased hostility). Moreover, a fatal outcome of any kind of accident is also increased as the weapons become more powerful. One of Kopit’s characters in *End of the World*, an investigator of war scenarios, adds another problem to the list:

> ‘There's a curious paradox built into deterrence strategy and no one has a *clue* how to get around it. The paradox is this: Deterrence is dependent upon strength—well, that's obvious; the stronger your nuclear arsenal, the more the other side's deterred.

> *However*, should deterrence *fail* for any reason, your strength *instantly* becomes your greatest liability, *inviting* attack *instead* of preventing it.... And *that* is where all these crazy scenarios come in in which war breaks out PRECISELY because no one WANTS it to! Really! I'm not kidding. This business is *filled* with paradox!' (58, original italics).

So even if deterrence proves successful, that is, deters the enemy from initiating attack, it cannot guarantee safety, but actually increases the chance of nuclear destruction. As Russell points out: "The world may go on for some time with brinkmanship and, with luck, it may not go over the brink. But luck cannot be counted upon to continue indefinitely. Sooner or later, present policies, if persisted in, must lead to disaster" (70-1). It should also be stressed that, in contrast to any other period of peace, nuclear weapons would cause a future war to bring about the end of the world. Amis writes in "Thinkability" that he debates with his father about nuclear weapons: "Nuclear weapons, my father reminds me, have deterred war for forty years. I remind him that no global abattoir presided over the century-long peace that followed Napoleon's discomfiture in 1815. And the trouble with Deterrence is that it can't last out the necessary timespan, which is roughly between now and the death of the sun" (16-7). The existence of nuclear weapons does not allow for any accident or war to be fought, since it might lead to the destruction of the world.

The mere presence of nuclear weapons endangers the world, even if they would never be used. Their control of human activity is not limited to the choice of using or not using them. Their existence already provokes use, even without wanting to. Still, they can slowly destroy the earth by simply existing. Amis writes:

> (…) Anthony Kenny says that 'weapons considered merely as inert pieces of hardware are not, of course, objects of moral evaluation. It is the uses to which they are put…' This isn't so. Recent evidence strongly suggests that nuclear weapons, in their inert

> state, are responsible for a variety of cancers and leukaemias. What toxicity, what power, what range. They cause death even before they go off. (27)

Because of the dangers that rise out of the maintenance of nuclear weapons, especially those in former Soviet Union regions that did not have the means to safely maintain them, Roger Luckhurst claims that "journalists have proposed the scenario of the threat of both use and nonuse as effectuating the same result – nuclear catastrophe" (91). Amis suggests that nuclear weapons possess a form of agency, as they seem to have control over people instead of being inanimate objects under human control and that therefore the damage caused by nuclear weapons, whether by exploding or waiting to explode, is something that can be the object of moral evaluation. In addition, he claims that it is the nuclear weapons that are to blame for the insanity of nuclear policy: "I suggest, however, that MAD is not just a political creation but a creation of the weapons themselves. Always we keep coming back to the weapons as if they were actors rather than pieces of equipment; and they earn this status, by virtue of their cosmic power. They are actors and, considered on the human scale, insane actors. The weapons are insane, they are MAD: they can assume no other form." (26) Nuclear weapons act upon people. Even though they are inert objects, they have control over all those who try to control them – scientists, politicians, the military and everyone else. Although he condemns everyone that defends nuclear weapons, or their use, Amis, like the characters in *On the Beach*, ultimately considers nuclear weapons are responsible for the threat of global destruction: "But of course it is the weapons themselves that are the threat." The struggle between people might not have been caused by nuclear weapons, but the possibilities they provide have certainly evoked them and increase their danger.

In Russell Hoban's novel *Riddley Walker* (1980), the influence of nuclear power can be felt in a similar manner, even after it has disappeared from society more than two millennia ago (125). Set in Inland, the poisoned ruins of England after it has been destroyed by the "1

Big 1" (30), or nuclear power, society has been reduced to small villages or "forms," guarded from the harsh environment by fences. Only scraps and pieces of modern society remain, tied together by a myth called the "Eusa story," a fusion between a museum guide to the icon *The Legend of St Eustace* and the record of the creator of the nuclear device that initiated the destruction of society, the "Bad Time." (123-7). The language of the Eusa story shows how knowledge has degenerated after the nuclear war, but has many remnants of the technological age. Mr Clevver, who is later identified as the devil figure from Punch and Judy puppetry, orders Eusa, "a noing man very qwik" (30), to find the 1 Big 1 as a solution to the war that threatens England:

> *2.* Mr Clevver sed tu Eusa, Thayr ar tu menne agenst us this tym we mus du betteren that. We keap fytin aul thees Warrs wy doan we jus du 1 Big 1. Eusa sed, Wayr du I fyn that No.? Wayr du I fin that 1 Big 1? Mr Clevver sed, Yu mus fyn the Littl Shynin Man the Addom he runs in the wud.
>
> *3.* Eusa sed, Thayr int aul that much wud roun hear its mosly iyrn its mosly stoan. Mr Clevver sed, Yu mus fyn the wud in the hart uv the stoan & yu wil fyn it by the dansing in the stoan & thay partickler traks. (30)

The use of "No.," "Addom" and "partickler" indicates that nuclear technology was seen as the solution to the war: one big war to settle them all.[6] Despite the changes in the language, the reader readily identifies the nuclear language of formulas, atoms and particles. Further in the story, Eusa finds the Littl Shyning Man and pulls him in two to obtain the No. of the 1 Big 1, despite warnings from his dogs. The story continues:

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[6] The atomic bomb was initially seen as a means of ending all wars, an ultimate weapon that would make war obsolete. In the essay "Fatal Fiction: A Weapon to End All Wars" Howard Bruce Franklin looks into literature that expresses the typically American desire for such an ultimate weapon to bring peace, such as Frank Stockton's 1889 novel *The Great War Syndicate*, Godfrey Hollis' 1908 novel The *Man Who Ended War* , *The Man Who Rocked the Earth* by Arthur Train and *Lightning in the Night*, which all predict the development of a powerful (nuclear) weapon by American scientists or a rogue scientist who force the world into peace.

> *18.* Eusa had thay Nos. of thay Master Chaynjis. He run them thru the Power Ring he mayd the 1 Big 1. Eusa put the 1 Big 1 in barms then him & Mr Clevver droppit so much barms thay kilt as menne of thear oan as thay kilt enemes. Thay wun the Warr but the lan wuz poyzen frum it the ayr & the water as wel. Peapl din jus dy in the Warr thay kep dyin after it wuz over. (...)
>
> *19.* Evere thing wuz black & rottin. Ded peapl & pigs eatin them & thay pigs dyd. Dog paks after peapl & peapl after dog tu eat them the saym. Smoak goin up from bernin evere wayr. (33)

The "Master Chaynjis" that have been triggered by the atomic bombs lead to the destruction of England as well as their enemies. The land is poisoned and those who survive are thrown back into a state of savagery. The "Bad Tyme" (from the Eusa story) or "Bad Time" (as it is called by Riddley and his contemporaries) can be seen as a result of Eusa's search for knowledge. In the novel, the story is mostly used to propagate a message, either for or against this search of knowledge. The Eusa story also functions as a history and a warning. It is written down, but only a select group is allowed access to the text although everyone is familiar with its contents (29). Variations and interpretations are told by two people of the "Mincery" by means of puppets in order to communicate historical and political messages. These shows are then interpreted and commented on by a "connexion man" like Riddley's father (22). When his father dies, Riddley becomes the next connexion man and has to decide what is the right view concerning Eusa's story and technological progress. Although many characters are fearful of the remnants of modern technology they find, others aim to use it to revive society to its former glory. The power and possibilities of nuclear power haunt the characters; to some it is a promise of restoration, to others a fearful shadow of destruction.

The ruins of nuclear science are most evident at Cambry (Cambridge), the former centre of science as well as the geographical centre of the book. When Riddley travels there

for the first time, he is grasped by the force that resides in the place: “That place wer a Power place you cud feal it all roun you. *Smell* the Power even with the dog pong. Breave it in to your arms and legs” (99, original italics). A similar feeling occurs when one is close to the Ring Ditch: “You can feal how there ben Power there. You go down 1 side of the Ring Ditch and up the order side you can feal it in your knees how youre walking tremmery and you can feal it in your belly. Feal it hy hy over you and overing you” (112). These experiences show how the people in *Riddley Walker* are affected by the memory of nuclear power. Both mentally and physically, the possibilities of the 1 Big 1 are in the interest of every one of the book. Those who fear and reject it feel it as strongly as those who aim to use it. Paradoxically, those who seek to control it are obsessed by it and are therefore controlled by nuclear power themselves.

The most explicit example of the dangers of the quest for knowledge is Abel Goodparley, one of the two showmen and Pry Mincer. Goodparley uses the Eusa show to advocate his belief that technology should be used to end the Bad Time and bring Inland “frontways” (41, 143). In his attempts to convince others of the need for technological progress, he loses himself in the search for the 1 Big 1, which ultimately costs him his life. As the Pry Mincer, Goodparley has to execute the ritual questioning and killing of the Ardship of Cambry when he becomes twelve years old. The Ardship is one of the Eusa folk, the scientists who were once in control of the nuclear power in Cambridge but are now reduced to a group of deformed beings. The only way for them to access their collective memory of the time before the Bad Time is to engage in “some poasyum” (107), a trance state induced by heaping together while naked (199). In order to obtain this knowledge, Goodparley has questioned and tortured them, as all Pry Mincers have done before him. However, Erny Orfing, his “Shadder Mincer,” takes over in order to stop Goodparley’s progressive reign and he is tortured and thrown out himself. However, due to Riddley’s protection, he is able to reach his old mentor

Granser with the "yellerboy stoan," which turns out to be the last ingredient of the 1 Little 1, gunpowder. Even after his fall, Goodparley wants to find and control the 1 Little 1, now that the 1 Big 1 is out of his reach. When Granser creates the gunpowder, both Goodparley and him are killed by the blast. In the end, the search for knowledge and the desire to control the technological power became their downfall. The obsessive 'prying,' ruthlessly trying to obtain control, albeit for a noble cause, has destroyed them.

On the Beach and *Riddley Walker* are different in many ways, yet both show how nuclear power affects people and controls them. The first shows how its unstoppable destructive force renders people passive and the second shows how people can be controlled by their desire to control it. These two effects are highlighted in these books, but are not exaggerated when compared to reality. Nuclear weapons, like other tools that provide control over others, induce both passivity and the desire to control. The arms race illustrates how the governments of the United States and the Soviet Union are bound to a policy that requires total inaction towards the other, because of the unthinkable consequences of nuclear war, as well as an incredible effort to control as much force as possible.

II

While this dual influence of nuclear weapons is more far-reaching than ever before, it is not unique. The effects of weapons that offer power, or power in general, on people is a common theme in history and literature. An insightful analysis of these effects on human actions and the human mind was written by Simone Weil. In 1939, she wrote and published her essay "L'*Iliade*, ou le poème de la force," later translated as "The *Iliad*, or the Poem of Force," in an

attempt to raise awareness of the dangers of the imminent war.[7] Her analysis of the *Iliad* clearly aims to address the issue of war and violence not only from a literary and historical perspective, but rather investigate its workings in a broader perspective, relevant to modern politics, just before the start of the second World War. Weil introduces the concept of "force," which stands at the centre of her analysis of violence. In her view, violence can only lead to more violence, bringing about destruction and suffering, because of the effects it has on people. Violence, or more generally force, can be used to control people, but cannot be controlled permanently. Indeed, her essay can be considered a warning especially to those who think they can control force. This is already outlined in the first paragraph of "The *Iliad*, or the Poem of Force":

> The true hero, the true subject, the center of the *Iliad* is force. Force employed by man, force that enslaves man, force before man's flesh shrinks away. In this work, at all times, the human spirit is shown as modified by its relations with force, as swept away, blinded, by the very force it imagines it could handle, as deformed by the weight of the force it submits to. For those dreamers who considered that force, thanks to progress, would soon be a thing of the past, the *Iliad* could appear as an historical document; for others, whose powers of recognition are more acute and who perceive force, today as yesterday, at the very center of human history, the *Iliad* is the purest and loveliest of mirrors. (3)

Force is immediately established as a horrible power, but a power which cannot be controlled by man. According to Weil, the most important lesson of the *Iliad* is to show that force cannot be controlled, whether in the form of swords and spears or tanks and aerial bombardments.

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[7] Most critics of the essay confirm Weil's motivation. For example, Dué states: "Just after France declared war on Germany (after the invasion of Poland) and just before the occupation of France by the Nazis, Weil composed and published 'The *Iliad*, or the Poem of Force,' a philosophical essay that never explicitly refers to contemporary events, but which (…) seeks to understand current conflict in light of the Trojan War" (245).

Although the first atomic bombs were only developed several years later, Weil's thesis is even more applicable to the unstoppable force of nuclear weapons.

Weil defines force as "that *x* that turns anybody who is submitted to it into a *thing*" (3). This objectification ranges from taking away people's ability to actively shape their lives to turning "man into a thing in the most literal sense: it makes a corpse out of him" (3). According to Weil, people lose their ability to react in the face of death, as if they have stopped living already. This state of passivity results from "the force that does *not* kill, i.e., that does not kill just yet. It will surely kill, it will possibly kill, or perhaps it merely hangs, poised and ready, over the head of the creature it *can* kill, at any moment, which is to say at every moment. In whatever aspect, its effect is the same: it turns a man into a stone" (5). Bereft of control of his or her own life, any person may be reduced to a thing even while alive. It is the power to control life and death that allows force to neutralise living beings. However, this does not happen exclusively in the last moments before death. Weil argues that slaves are similarly reduced to objects, since they have no control over their lives, or deaths. Under the threat of violent punishment, slaves are forced to obey, making them "another human species, a compromise between a man and a corpse" (8). When force is used to submit others, the victims are rendered passive by the possibility of death. Weil seems to suggest that it is not only fear that enslaves man; the expectation of death may cripple human will so that it does not function anymore, disallowing people to decide for themselves whether they want to obey or risk battle when threatened by force. When this occurs, force has taken control of the mind and has turned an individual into stone. Even without the threat of death, people can be turned into objects by simply denying them the chance to govern themselves. Slavery does not always rely on violence and execution, but may be a result of any form of hierarchy, blackmail, debt or law. This is also force, since it controls life like violence might. But whether violent or not, force flows through its user to dominate its victims. Weil writes:

"Force in the hands of another, exercises over the soul the same tyranny that extreme hunger does; for it possesses, and in perpetuo, the power of life and death" (11). Again, she stresses that force controls both life and death. Thus, force may compel people into slavery, even when they are not threatened by death, as a result of smaller limitations to freedom or total domination.

Weil's definition of force as "that *x* that turns anybody who is submitted to it into a *thing*" has been applied to people, though the definition can be applied to anything that limits freedom and turns something else into an object. When considered in this manner, force is not only power wielded by man, but also includes natural or scientific forces. An 1998 article by Charles Altieri, "The Concept of Force as a Frame for Modernist Art and Literature," defines Hegel's analysis of force, which is closely related to Weil's. To introduce his essay, Altieri argues that force was a central theme during the nineteenth century:

> The nineteenth century was fascinated by [the concept of force] - abstractly in idealist thinking, concretely in developments that ranged from experiments in electricity and magnetism to speculations on large-scale forces working in evolution and in social determinism. These figures of force carried a complex message, suggesting both the possibility of endless progress and the necessity of increasing dehumanization, since everything that seemed capable of increasing individual powers also seemed capable of depriving agents of their autonomy." (192-3).

The possibilities that lay in these natural and social forces, both "endless progress" and "increasing dehumanisation" provided inspiration for new projects in both science and art and can be recognised in many projects of the time, ranging from Marxism and Darwinism to the concept of the sublime. In relation to literature, especially, the sublime can be considered influential. The essence of the sublime is closely related to forces that dominate the individual

and the individual's response to these overwhelming powers. Because of this, the sublime is sometimes also associated with nuclear weaponry. According to Joseph Tabbi,

> (…) the sublime persists as a powerful emotive force in postmodern writing, especially in American works that regard reality as something newly mediated, predominantly, by science and technology. Kant's sublime object, a figure for infinite greatness and infinite power in nature that cannot be represented, seems to have been replaced in postmodern literature by a technological process. Now, when literature fails to present an object for an idea of absolute power, the failure is associated with technological structures and global corporate systems beyond the comprehension of any one mind or imagination. (ix, 1995)

Now that nature poses less of a threat to most individuals, or is at least perceived to be less dangerous, the indescribable complexity and power of technology as a force that overwhelms individuals assumes the primary role as a modern variant of sublime. The sublime is characterised by the combination of the idea of unthinkability with the feeling of powerlessness, which are also central in the literary responses to nuclear weapons.

Frances Ferguson also connected the sublime to nuclear weapons in a similar manner in her contribution to the famous 1984 volume of *Diacritics*, an essay called "The Nuclear Sublime." Ferguson argues that the idea that the nuclear holocaust is unthinkable is a continuation of the aesthetics of the sublime: "For I take the nuclear as the unthinkable to be the most recent version of the notion of the sublime, that alternative and counterpoise to the beautiful" (5). She also claims that the sublime is uncontrollable, in contrast to the beautiful, which is controlled perfection:

> And this dissatisfaction with beauty precisely concerns the notion of individuality and self-preservation, for the eighteenth-century interest in the sublime is always in the thing that is bigger than any individual, and specifically bigger in terms of being more

> powerful and, usually, more threatening. As Edmund Burke, the chief proponent of an empiricist account of sublimity puts it, we love the beautiful as what submits to us, while we fear the sublime as what we must submit to. (5-6)

Indeed, nuclear weapons constitute the ultimate threat and are considered just as uncontrollable as natural disasters, since they are a part of the political and technological processes that cannot be steered by individuals. In addition, their awesome and ever-increasing power threatens everyone; whereas traditionally the sublime was sought out in rough areas of nature, no one is safe from the bombs when they are released. Beyond the control of the individual, the weapons are part of a larger force before which people can only bow down. Ferguson also discusses the matter of ownership and summarises Kant's argument that the sublime can never be owned, since it would then be subject to control of its owner (6). Following the trail of thought, the power of nuclear weapons is not only uncontrollable, but as a result also defies ownership. This concept has been articulated by several nuclear critics and artists and also plays a crucial role in Weil's discussion of force.

Another useful discussion of force that is introduced by Altieri is Hegel's commentary on force from *The Phenomology of Spirit*. Altieri points out that Hegel considered force to be that which affects objects, but cannot be seen directly. Instead, force is only visible via the effects it has on objects and therefore can only be represented by "abstract formulas," for else force would become a series of "static pictures" (both Altieri 201). Force is used to explain everything that cannot be attributed to the object itself, but is caused by something external. This is linked to the fact that human perception must put objects into a frame by generalisation and categorisation in order to function properly: "[p]erception depends on universals because it has to work within established categories; it has to see something as only a positive identity" (Altieri 201). As perception cannot work with things it cannot perceive, it

relies on positive identity and must therefore ignore what it does not know. Once the mind moves beyond the mere perceptible, it moves into the realm of forces:

> We perceive a light bulb as on or off. But suppose we begin to ask what produces that difference (or ask what makes us ask about that difference). We cannot answer such questions simply by observing. They move us from a world of objects perceived to one where perceptions are only appearances, only phenomena whose shapes and effects depend on something that cannot be located entirely in the object. (Altieri 201-2)[8]

To explain what makes individual objects deviate from their universal laws, Hegel uses the concept of force. The universals that are perceived by the human mind are constituted by laws that define what makes any representation of that universal fall in the same category; what makes an individual tree part of the universal idea of tree in the mind. Hegel writes: "[N]egation is an essential moment of the universal, and negation, or mediation in the universal, is therefore a *universal difference*. This difference is expressed in the *law*, which is the *stable* image of unstable appearance. Consequently, the *supersensible* world is an inert *realm of laws* which, though beyond the perceived world – for this exhibits law only through incessant change – is equally *present* in it and is its direct tranquil image" (90, original italics). The instability of appearances, which Hegel calls the universal difference or their deviation from the universal, is explained by the workings of forces. Forces are responsible

[8] Altieri's interpretation of Hegel's argument is useful because of its focus on the effects of forces on objects, as well as its less opaque terminology. However, in order to do justice to the original argument, I will provide references to Hegel's more philosophical text in footnotes 8-10. This quote by Altieri is similar to Hegel's view expressed in the following manner: "This true essence of things has now the character of not being immediately for consciousness; on the contrary, consciousness has a mediated relation to the inner being and, as the Understanding, *looks through this mediating play of Forces into the true background of Things*." (86, original italics).

for deviations from that universal law that are found in appearance, which allows Hegel to explain why things may be different and united at the same time.[9]

After the introduction of the relationship between perceptible appearances, or objects, the laws that lay behind them and the external Forces that mediate between, reality does no longer consist of objects alone; objects are continuously affected by external forces, which are perceived indirectly. Objects may be seen as simply the 'appearances' of forces, as they are the deviations from the laws that demonstrate force perceptibly. Altieri states: "Awareness of force, then, makes it impossible simply to treat the object as an isolated, self-sufficient particular. Force acts on the object, rendering it passive in relation to the being of some other reality" (202). Every object that is acted upon by force is denied some of its self-identity, as it differs from the universal law. To use Altieri's example of the light bulb again: when one light bulb is affected by electrical force, it loses its universal state of 'not-shining' and is forced into 'shining.' Compared to another light bulb, that is in control of its own 'not-shining,' it has lost control and becomes a passive vehicle for the electrical force.

The next step is to apply this theory to conscious beings. In terms of perception, they are also objects. However, they are able to shape their actions more actively than the light bulb. Nevertheless, similar alterations may be induced by force. As the influence of forces is acknowledged in relation to inanimate objects, it is impossible to exclude conscious beings from their grip. A person may be forced into a state of uncontrolled spasms by electrical force. The force has taken away control and the person is thereby rendered passive when compared to another person that is not affected by the same force. The example of electrical force may be grotesque, but other forces exercise less obvious limits to human control. The

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[9] The identification of the different and the united as two opposites that exist as separate but inherit pieces of a single unity is the main argument of chapter A III in Hegel's *The Phenomology of Spirit*. However, because of its complexity, as well as its irrelevance to the specific nature of force that is advocated in this thesis, I will not look into this further.

result is a clash of the inner power of objects to shape their life with the external forces that affect them, and turn them into appearances. Altieri writes:

> [T]rying to understand that relation between appearance and what underlies it creates often unresolvable concerns about what aspects of the expression are active, that is, controlled by the being, and what aspects show how the being is acted on by some ancillary conditions. Active forces reveal the being for itself, eagerly 'soliciting' what might complete it, while what seems passive requires our asking how the object plays the role of being solicited as a being for another whose controlling presence we then have to speculate on. (203) [10]

These questions concerning activity or passivity can be asked of any object, whether a rock, a plant or a human being. In essence, they are about agency: are its actions determined by the object, meaning from within, or by force, meaning from without? It is this interaction between inner power and external force that determines reality, and it is this interaction that Weil analyses in the *Iliad*.

When compared to Hegel's force, Weil's concept shows remarkable similarity. Both describe force as an invisible influence affecting visible objects. Hegel argues that this influence changes objects in such a way that they become different from the universal law that binds them. In other words, the 'appearances' of the universal idea are no longer themselves. Altieri's interpretation of the relationship between these kind of forces and objects, especially art, reveals that there is a struggle between the object's inner essence and the alterations induced by force. Thus, force may take away control from the object, since it is forced into a

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[10] The interaction between the two forces, one set of outer forces and the other set of material forces, which Hegel describes as working towards the outer forces, is formulated to be a relation between active and passive. Hegel argues: "To complete our insight into the Notion of this movement it may further be noticed that the differences themselves are exhibited in a twofold difference: once as a difference of *content*, one extreme being the Force reflected into itself, but the other the medium of the 'matters'; and again as a difference of *form*, since one solicits and the other is solicited, the former being active and the other passive." (85, original italics) Altieri interprets the force of the matters as the power of an object, which is in constant interaction with the outer forces which affect it.

different form, way or behaviour. The lack of control can also be seen as passivity, as it can reach a point where the object cannot act of its own accord at all. This domination of force reminds of Weil's analysis, which shows how violent force may be used to control and suppress 'objects,' both people and inanimate objects. However, Hegel sometimes speaks of forces, the multitude of which is responsible for all effects that cannot be explained by objects alone. At other times, "Force" is used to include all forces. Weil's concept of force seems to entail a subset of these forces, constituted by those that enslave objects and neutralise them by violent or otherwise compelling means. This subset is best described as those influences that *force people into* doing things, or doing nothing. Arguably, any force may be wielded to enslave objects, but nevertheless not all of the forces that can be included in Hegel's definition fall under Weil's definition force. Electrical and magnetic forces are not part of the force Weil discusses, since they do not directly affect people or enslave them; they do not turn them into a thing. Still, Altieri's discussion of Hegel's concept of forces offers more insight into Weil's analysis. For example, the clash between external force and internal power that Altieri describes is present in Weil's discussion of force and the forcible alteration of an objects essence plays a central role in both texts.

Whereas the main purpose of Weil's essay is to warn for the destructive nature of force, Hegel and Altieri do not talk about the destructive capabilities of forces. However, it seems logical that any force capable of altering objects or denying them self-control will not leave its subjects unharmed. Since force may transform an object and alter its appearance, behaviour and power, objects can lose their identity and therefore even seize to exist. Identity can be seen here as both sameness to the earlier self, that is constancy, or sameness to other objects of the same kind. In both cases, the object's self has been altered or reconstructed. Arguably, nothing is more dangerous to any object, whether a lifeless or a living object, than the destruction of its essential self.

Weil's warning is not only to those that will be the victims of violence and oppression. It is also to those who violate and oppress. She observes that in the *Iliad*, no one escapes his or her downfall. Not even the highest commanders or the mightiest of warriors are shown without defeat, misery and fear: "In this poem there is not a single man who does not at one time or another have to bow his neck to force" (11). All those who try to wield force in order to achieve their aims will sooner or later lose control of both the force they use and themselves. In the end, force will destroy them like it did their victims. Weil writes: "Force is as pitiless to the man who possesses it, or thinks he does, as it is to its victims; the second it crushes, the first it intoxicates. The truth is, nobody really possesses it" (11). As claimed by Ferguson, a power that is too big and too threatening for individuals to comprehend or control, a sublime power, cannot be owned. Weil explains this characteristic of force in great detail, as it is this claim that makes any use of force a dangerous and destructive act, to both those forced and those forceful. Even though force can be wielded to force others into obedience, no one can control it. At some point, force will leave its wielder and turn against him. But even before this moment can people be controlled by the force they use. Since force can crush every resistance, those who use it often lose sight of the consequences of their actions and come to rely on force exclusively. This is the intoxication Weil speaks of. Force then comes to possess them, as they stop thinking clearly and lose control of their actions: "The man who is the possessor of force seems to walk through a non-resistant element; in the human substance that surrounds him nothing has the power to interpose, between the impulse and the act, the tiny interval that is reflection. Where there is no room for reflection, there is none either for justice or prudence" (Weil 14). The absence of reflection leads to unnecessary atrocities and oppression and create a flow of violence, which is hard to escape.

This intoxication occurs especially during war. Weil´s analysis of the *Iliad* shows how soldiers are trapped in a violent state of mind, brought about by their abuse of force and their

own anger and sadness. Just before the war, the soldiers in the *Iliad* are looking forward to the war, assured of a glorious victory. Weil writes: "At the outset, at the embarkation, their hearts are light, as hearts always are if you have a large force on your side and nothing but space to oppose you" (21). Although this image of war may last as long as force grants the soldiers victory, the horrible reality of war will become apparent when they face defeat, death among their ranks or fear itself. Intoxicated by force, but at the same time confronted with the horrors of war, the mind is no longer capable of envisioning an alternative, "for thought cannot journey through time without meeting death on the way" (Weil 23). The mind becomes trapped in misery and is unable to end it: "The mind ought to find a way out, but the mind has lost all capacity to so much as look outward" (Weil 23). Unable to either back down or move on, soldiers are neutralised and lose control of themselves. When the mind is trapped in this deadlock, it is unable to think of any solution that is not extreme. If not reduced to total passivity, people still desire to break free from the clutches of war. Weil writes: "(…) the soul that is enslaved to war cries out for deliverance, but deliverance itself appears to it in an extreme and tragic aspect, the aspect of destruction. Any other solution, more moderate, more reasonable in character, would expose the mind to suffering so naked, so violent that it could not be borne, even as memory" (23). At this point, the individual has become raw violence, pure force; he or she does not think rationally, but acts violently, on impulse. The border between the object and force has been broken down. Because of this, "the man possessed by this twofold need for death" must keep fighting and destroying, even if he destroys himself (Weil 24). In fact, death is the only thing that offers a way out.

Considering all this, Weil argues that "(…) the conquering soldier is the scourge of nature. Possessed by war, he, like the slave, becomes a thing, though his manner of doing so is different – over him too, words are as powerless as over matter itself. And both, at the touch of force, experience its inevitable effects: they become deaf and dumb" (26). This war-

induced state of passivity, apathy and numbness, described in so many works of literature, is a result of force's grip on individuals.[11] As long as the mind is trapped in the vicious circle of doing and undergoing violence, the individual will not be in control and loses him- or herself to force.

The *Iliad* shows how the tide of battle determines which side is winning, not the power of its soldiers. Soldiers are all at the mercy of this tide and can only hope and pray that it favours them. When it does, they must surrender to it and they become mindless killing machines. When it favours their enemies instead, they can only try to escape death long enough to regain their grip on force and strike back. This push and pull movement of force shapes the war more than any weapon or warrior and is partially mediated by the presence of the gods, who frequently help one side or the other to gain the upper hand. However, not even Zeus can control it at all times and seems subject to another mysterious force, which he cannot hope to resist, as the other gods cannot resist him. Similarly, once one of the two armies is favoured by force, they cannot be resisted at all. It is striking how there is nothing in between absolute power and total submission in Homer's epic. It is futile to resist if force flows through the enemy; but the experienced warriors already know that their momentum cannot last forever and that at one point, the enemy will fall prey to force themselves.

On a much smaller scale, force is also evident in *The Lord of the Flies* by William Golding (1954), which tells a story about a group of boys marooned on a deserted island in the Pacific Ocean. Initially, the boys manage to maintain order and join forces to survive, albeit with some problems. One of the oldest boys, Ralph, is elected leader, and they hold meetings to discuss their plan and problems. To call these meetings, Ralph blows a white conch, the symbol of authority and cooperation, beautiful but delicate. He has many

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[11] Numerous examples from different times and cultures can be given of this state of mind induced by war, excessive violence or opression. Examples may include *Heart of Darkness*, *Lord of the Flies*, and, of couse, the *Iliad*.

arguments with Jack Merridew, who is in charge of a group of the older boys, formerly choirboys and now hunters. The rows between Jack and Ralph are not won by intellect, physical power or weaponry, but by an undefined and alternating supremacy. Like in the *Iliad*, the balance in power is shifted not by any action of the boys themselves, but is determined by the favour of an unknown power. Jack crops up his frustration, which is increased by his fruitless hunting attempts. Although threatening and arrogant from the start, he slowly loses control of himself and becomes controlled by his lust for power; power over the pigs, his group of hunters and Ralph (Golding 91). When he has killed his first pig, his frustration is replaced by desire: "His mind was crowded with memories; (…) knowledge, that they had outwitted a living thing imposed their will on it, taken away its life like a long satisfying drink" (88). Jack's mind becomes preoccupied with imposing his will on living things, especially the pigs, and the hunting becomes an obsession. Since Ralph wants him to stop hunting and focus on the signal fire, Jack tries for leadership, but is rejected and leaves the group. However, the tide has turned in his favour and the most of the "biguns," the slightly older boys that are the backbone of the group, join him for the thrill of hunting. When they have butchered their first pig, Jack orders that its head should be put on a pole to be an offering to the beast, a fantastic combination of the children's anxieties and a wounded man who has landed on the island by parachute. Jack then aims to recruit all the boys into his camp by throwing a party with the meat of the pig. During this party, it becomes clear that his attitude becomes increasingly savage: all faces are painted with clay and charcoal to create the hunters mask and frightened by the rain, they start chanting their hunter's song: "'*Kill the beast! Cut his throat! Spill his blood!*'" (188). As the storm increases, so does the intensity of the ritual, until Simon, the only boy who was not present at the party, finally arrives. The crowd then targets him as one, possessed by the violent ritual: "*Kill the beast! Cut his throat! Spill his blood! Do him in!*'" (188). With their spear, nails, teeth and fists they kill Simon,

who is then quickly washed away by the sea. When Ralph reflects on the event the next morning, he realises that they have murdered one of their own. Piggy, the fat kid with glasses and asthma who is the ostracised voice of reason among the boys, tries to rationalise it:

> 'Piggy.'
>
> 'Uh?'
>
> 'That was Simon.'
>
> 'You said that before.'
>
> 'Piggy.'
>
> 'Uh?'
>
> 'That was murder.'
>
> 'You stop it!' said Piggy, shrilly. 'What good're you doing talking like that?'
>
> He jumped to his feet and stood over Ralph.
>
> 'It was dark. There was that - that bloody dance. There was lightning and thunder and rain. We was scared!'
>
> 'I wasn't scared,' said Ralph slowly, 'I was - I don't know what I was.'

Ralph realises that they have surrendered to a violent force that has deprived them of their common sense. The fear that has affected all the boys so long, the fear of the beast, was actually the fear of the darkness inside them. Unleashed by that same fear, Jack has given in to force and now that he permanently wears his mask, he has become pure force, a being without self-consciousness (174), without a conscience and no understanding of the consequences of his actions. The others are aware of the power of these masks: "They understood only too well the liberation into savagery that the concealing paint brought" (212).

Ironically, it was Simon who had already concluded earlier that the true beast was within themselves: "However Simon thought of the beast, there rose before this inward sight the picture of a human at once heroic and sick" (128). Although he tried to convey the others

of his feelings during an assembly, their age makes it impossible for them to understand this: "'What I mean is... maybe it's only us.' 'Nuts!'" (111). Golding uses the boys' incomprehension as a representation of the adult incomprehension in the world. Like their adult counterparts, the leaders struggle to maintain the peace, but Ralph's quest for salvation is thwarted by Jack's desire to attain richness and glory, which eventually leads to the destruction of the entire society. The "littluns," representing the uncountable masses, are not capable of contributing to anything: they respect the authority of the biguns, but are too easily distracted into play and self-interest to grasp the larger picture. Piggy's attempts to convince the others to act in accordance with reason and science are ridiculed and he is killed when making a plea for sensibility, law and cooperation. This allegorical reading is encouraged by the novel's thematic similarities to *Heart of Darkness*, as well as the form of the novel: the island is a miniature world inhabited by miniature people, as a showcase of human behaviour. Moreover, in the few hints that provide some context to the island and its inhabitants, it becomes clear that the world is at war, which foreshadows the events on the island. Again it is Piggy who can see beyond the limited view of the other boys: "'Didn't you hear what the pilot said? About the atom bomb? They're all dead'" (20).[12] Although not clarified in the novel, it is likely that the boys were moved in order to escape the nuclear war. However, their plane crashed on the island and with a nuclear war being fought on the background, the boys fall into the same behaviour that led to the nuclear war. Altogether, *The Lord of the Flies* provides another example of force at work, in which the boys on the island give insight into the unspecified background of nuclear war.

Golding's novel can be considered a warning against the way people are moved into war and illustrates how this process works. In this work, force can be recognised as the

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[12] Other references to the war that is going on are found on page 105, where Piggy mentions the war in an argument for science, and on page 200, when Ralph, Piggy, Sam and Eric fantasise about escaping the island: "We might get taken prisoner by the reds." There is also a reference to "a civilization (…) that was in ruins" (78), which has conditioned the boys.

mysterious momentum of violence, that can empower anyone with the means to control others, but leads inevitably to the destruction of lives. *The Lord of the Flies* abounds with remarks concerning authority, mysterious power and possession by violence and irresponsibility. It is not only Jack that becomes possessed by his violence; others also experience force flowing through them. For example, one of the littluns, Henry, on one occasion plays with the little creatures that explore the area regained by the tide. By creating tunnels and lakes of water and moving them around with a stick, Henry "became absorbed beyond mere happiness as he felt himself exercising control over living them" (78), similar to the exhilaration felt by the hunters every time they manage to kill a pig. When most of the boys have joined Jack, the "liberation into savagery" provides additional weight to the force within them. Most notably, Roger turns into Jack's primary executioner after he feels the thrill of controlling others by force: "Roger took up a small stone and flung it between the twins, aiming to miss. They started and Sam only just kept his footing. Some source of power began to pulse in Roger's body" (216). Afterwards, he is the one that tortures the twins into joining the tribe. Jack experiences a similar feeling of power when he has taken control of the others and is served amidst the circle of feasting boys: "Power lay in the brown swell of his forearms: authority sat on his shoulder and chattered in his ear an ape" (185). Although many of the boys seem to enjoy the new tribe and welcome it as the solution to their problems on the island, the reader cannot help but see that their course leads to self-destruction. The unscrupulous desire for violence, both in the form of hunting the pigs and turning people into scapegoats, will eventually devour all resources on the island and within the tribe. However, due to the intoxication induced by force, they are blind to these consequences. As the novel ends, Ralph is hunted down by the tribe. In order to find him, they set the forest aflame in an act of utter violence and blindness. As Ralph is cornered at the far end of the island, he meets a naval officer that has just arrived at the island. His presence suddenly brings back self-

consciousness to the boys, who collapse when they realise they are going home. With the entire island on fire, two boys killed and one disappeared, the boys have destroyed the island and nearly destroyed themselves when the intervention of the naval officer saves them from themselves and the influence of force.

The Lord of the Flies offers an insight into the self-destructive ways of mankind as guided by force in a allegory of World politics. It shows how both those that use force and those that suffer from it perish beneath its power. As stated before, force's capacity to control and destroy everything is also Weil's main concern: "Its power of converting a man into a thing is a double one, and in its application double-edged. To the same degree, though in different fashions, those who use it and those who endure it are turned to stone" (26). Nevertheless, people seek out this force in order to obtain control or victory over others. Those that have force on their side are able to reduce their enemies to total passivity and into obedience, but are changed into a vehicle for force themselves. However, this ambivalent relationship with force does, after all, win the battle. Weil notes:

> It is not the planning man, the man of strategy, the man acting on resolution taken, who wins or loses a battle; battles are fought and decided by men deprived of these faculties, men who have undergone a transformation, who have dropped either to the level of inert matter, which is pure passivity, or to the level of blind force, which is pure momentum. (26)

As shown in *The Lord of the Flies*, the planning man cannot decide the fate of the battle; Piggy's advice has little impact on the boys, although most recognised him as the smartest kid on the island. Instead, those that were transformed by force were the ones that controlled the others, as exemplified by Jack and Roger. From a military perspective, the control of force is the ultimate aim, since it allows control over action and passivity. However, since anyone who uses force is affected by it, the key to success also lies in controlling these

transformations. Weil writes: “Herein lies the last secret of war, a secret revealed by the *Iliad* in its similes, which liken the warriors either to fire, flood, wind, wild beasts, or God knows what blind cause of disaster, or else to frightened animals, trees, water, sand, to anything in nature that is set into motion by the violence of external force” (27) This “last secret” is not about the capabilities of weapons or the intellect of the strategists, but shows that the most important objective in any battle is to control force and those transformed by it: “The art of war is simply the art of producing such transformations, and its equipment, its processes, even the casualties it inflicts on the enemy, are only means directed toward the end - its true object is the warrior’s soul” (Weil 27). This reminds one of the critical analysis of the deterrence policy by Eugene Rostow, as summarised by Daniel L. Zins:

> [Maintaining deterrence] means confronting Soviet expansion... with the prospect of unacceptable risk, to which they have always responded with prudence. In effect, maintaining deterrence has become a quest for nuclear weapons and doctrines that will somehow convince Moscow that in moments of extreme crisis U.S. leaders might not be daunted by the prospect of unacceptable risk. Maintaining an ability to sow such doubts in the minds of Soviet leaders, we are told, is the essence of deterrence. When U.S. "vital interests" are at stake, these must somehow be made to appear more vital than even the immunity of American and allied citizens to nuclear attack; that is, the unacceptable risk of nuclear war must be manipulated in such a way as to make it appear less unacceptable to us than it is to the Russians. (Zins 132)

The true objective of the deterrence policy is not to save as many people as possible, but to freeze the enemy and control them. In order to achieve this, the enormous amount of weapons and the insane policies are just means to bring about this transformation into passivity. However, as Weil predicted, the desire to control the other also leads to the transformation of

the U.S. nuclear planners: as a vehicle of force, they were unable to stop the increase in the amount nuclear weapons and the intensity of the threat of war. Hubbard argues:

> The maturity of the atom belongs to the era which extended the paradoxical fear and fascination of the atom into international doctrine. It was not a uniformly progressive experience, instead it was an age of contradictory practice and rhetoric pushing science and industry forward escalating arsenals and their capacity while demanding limitations and restraining theories. (44)

Like Russell expected, governments could not stop increasing weapon power and hostility, although many desired it.

How governments controlled by force can lead the planet into destruction was also described by one of the first people to write fiction about nuclear weapons, namely H. G. Wells. Famous for his fictional explorations of the future, Wells already predicted the impact of nuclear power in his book *The World Set Free*, published in 1913. In the novel, nuclear power is harnessed in 1933 and leads to a revolution in energy supplies, the breakdown of the capitalist economy and to the development of the atomic bomb. Wells also foresaw the military use of atomic power and provides accurate descriptions of the continuous explosions of nuclear bombs, as well as the meltdown phenomenon, when an atomic bomb is dropped on Berlin from a small aeroplane:

> There, as more and more of the Carolinum became active, the bomb spread itself out into a monstrous cavern of fiery energy at the base of what became very speedily a miniature active volcano. The Carolinum, unable to disperse, freely drove into and mixed up with a boiling confusion of molten soil and superheated steam, and so remained spinning furiously and maintaining an eruption that lasted for years or months or weeks according to the size of the bomb employed and the chances of its dispersal. Once launched, the bomb was absolutely unapproachable and uncontrollable

> until its forces were nearly exhausted, and from the crater that burst open above it, puffs of heavy incandescent vapour and fragments of viciously punitive rock and mud, saturated with Carolinum, and each a centre of scorching and blistering energy, were flung high and far." (2.4)

Obviously, the description is similar to the present image of nuclear bombs: toxic fallout, a continuous explosion and enormous heat. Wells also realised that weapons like these were too powerful to be used in war. The narrator from the future expresses wonder at the situation that leads to the use of atomic bombs:

> A recent historical writer has described the world of that time as one that 'believed in established words and was invincibly blind to the obvious in things.' Certainly it seems now that nothing could have been more obvious to the people of the earlier twentieth century than the rapidity with which war was becoming impossible. And as certainly they did not see it. They did not see it until the atomic bombs burst in their fumbling hands. Yet the broad facts must have glared upon any intelligent mind. All through the nineteenth and twentieth centuries the amount of energy that men were able to command was continually increasing. Applied to warfare that meant that the power to inflict a blow, the power to destroy, was continually increasing. There was no increase whatever in the ability to escape. (…) It is only by realising this profound, this fantastic divorce between the scientific and intellectual movement on the one hand, and the world of the lawyer-politician on the other, that the men of a later time can hope to understand this preposterous state of affairs. Social organisation was still in the barbaric stage. There were already great numbers of actively intelligent men and much private and commercial civilisation, but the community, as a whole, was aimless, untrained and unorganised to the pitch of imbecility. Collective civilisation, the 'Modern State,' was still in the womb of the future.... (Wells 2.5).

Passages like these condemn the idiocy of nuclear war from the perspective of the future. They already hint at the developments that occur later in the novel: after more than two-hundred bombs are dropped and states fall apart, a man named Leblanc succeeds in organising a conference of governments where "the ancient belligerent separations" of nationalism are dissolved and a world government is instituted, which brings peace and order to the world (3.5).

Wells's pessimism towards his contemporaries' ability to avert global destruction is balanced by his optimism regarding the impact of nuclear war on the world. His insightful predictions of atomic weaponry are flawed in the severity with which they plunge the world into chaos. Even though Wells's descriptions of the final phases of the war are grim and include millions of death, near-global anarchy, disease, famine and a breakdown of economy and state, he has underestimated the power of nuclear weapons, since it is unlikely that anyone who was not hiding deep underground would survive if over two hundred nuclear bombs were deployed, as Shute, Amis and others show. His optimism also shapes the formation of the world government, for although the narrator states that "[i]t would be possible to cite a thousand instances of error and inefficiency in its proceedings due to the forgetfulness, irritability, or fatigue of its members," and "[i]t experimented considerably and blundered often" (both 4.2), the ease with which the council is able to install the new government is remarkable, even considering the damage that was done to the traditional system during the war. However, Wells's work may be thus constructed consciously because of his desire to inform and affect his readers in order to convince them of the corruption of the existing system and the benefits of a world government. Conveyed not by a mysterious omniscient narrator, but by a confident, educated scientist from the future, the story predicts disasters that can only be prevented by radical change.

Wells touches upon a theme that recurs throughout nuclear war literature: nuclear war as a consequence of humanity's stupidity. Many works express the idea that the nuclear war was or is going to be an inevitable result of human actions. Behind the uncomprehending fascination of the narrator from the future, Wells's criticism of his age is obvious. The future historian expresses wonder at the ignorance and confused priorities of twentieth century mankind. Usually this wonder also contains a blunt rebuke at the stupidity of mankind, which is of course also directed at the reader. Wells writes:

> (…) the political structure of the world at that time was everywhere extraordinarily behind the collective intelligence. That is the central fact of that history. For two hundred years there had been no great changes in political or legal methods and pretensions, the utmost change had been a certain shifting of boundaries and slight readjustment of procedure, while in nearly every other aspect of life there had been fundamental revolutions, gigantic releases, and an enormous enlargement of scope and outlook. The absurdities of courts and the indignities of representative parliamentary government, coupled with the opening of vast fields of opportunity in other directions, had withdrawn the best intelligences more and more from public affairs. The ostensible governments of the world in the twentieth century were following in the wake of the ostensible religions. (2.1).

In Wells's view, the systems of capitalism, nationalism and imperialism are responsible for creating a situation which could not escape destruction. The preoccupation with money, power and difference led to a situation which could not be held. Wells expresses similar views in other works, such as *The War in the Air* and *The Shape of Things to Come*, where the world is also destroyed as a result of the faltering system, albeit in different ways: in the former giant airships bomb all great cities to dust; in the latter an inconclusive war leads to global economic and political breakdown, followed by a famine and plague that kill nearly everyone.

Like in *The World Set Free*, the increase in technological and therefore destructive capabilities is not paralleled by a rise in awareness of problems or sufficient change to fend off the end of the world as it is known. When nuclear weapons allowed for the total destruction of mankind by its own hand, the domination of force became life-threatening to all individuals at the same time. Unfortunately, due to the intoxication caused by force, people are unable to think of a solution. Russell states: "The world is faced with a race between reason and death. Advocates of death point out, with a lamentable degree of truth, that reason is a very feeble force in human affairs" (71-2). Similarly, Weil writes about the *Iliad*: "But words of reason drop into the void. If they come from an inferior, he is punished and shuts up; if from a chief, his actions betray them" (21). In *The Lord of the Flies*, Piggy is ostracised and ridiculed and the others are unable to realise the promise of peace. Likewise, the warnings and pleas are neglected in *The World Set Free* until its too late and the world has been destroyed.

The same sense of inevitability can be found in *On the Beach* and *Riddley Walker*. Both express the feeling that the human desire for control and power led to the destruction of the earth. In *On the Beach*, this becomes clear in the passive acceptance of the nuclear disaster as a punishment for mankind´s irresponsible behaviour. Discussing how the world will end, Peter, Dwight and John conclude that the world is better off without mankind:

> 'It's - it's the end of the world. I've never had to imagine anything like that before.'
>
> John Osborne laughed. 'It's not the end of the world at all,' he said. 'It's just the end of us. The world will go on just the same, only we shan't be in it. I dare say it will get along all right without us.'
>
> Dwight Towers raised his head. 'I suppose that's right. (...) Maybe we've been too silly to deserve a world like this,' he said.
>
> The scientist said, 'That's absolutely and precisely right.' (89)

Again without emotion or rage, they conclude that the human race brought this disaster upon itself and is now punished for its irresponsibility. However, there is no judgment involved, not from the people or from any kind of higher power. The down-to-earth fatalistic realism that characterises people in *On the Beach* leaves no room for religion. Although Dwight goes to church, he is not religious; in fact, *On the Beach* is devoid of any kind of hope except for Dr. Jorgensen, who hopes to prove that the radiation decreases faster than expected - but he is distrusted even before his theory is eventually disproved. They submitted to their fate, because they realise it was the fault of everyone.

In *Riddley Walker*¸ the theme of judgment and guilt is more prominent, as is hope. These elements are all mixed into the religion that is based on Eusa, the mythical figure responsible for developing the atom bomb. But even in a society that is imbued with guilt and punishment, there is no sense of a higher power that judges them. Jack Branscomb states in an essay on *Riddley Walker*:

> Like the Biblical account of the Fall, the story explains the miserable state of man as being due to the excessive pursuit of knowledge. In the Eusa version, however, Eusa's search is less a violation of a divine prohibition than an assault on the very nature of things, man's nature included. The Fall is shown as a descent into abstraction, represented primarily by mathematics, (…), and dualism—the 'Littl Shynin Man' is literally torn apart. (*Nightmare* 108)

The fall into the miserable way of life Riddley and the others live in is, therefore, their own fault. The Eusa mythology involves the shared punishment in the form of a series of "Master Chaynjis" which must be endured after Eusa initiated them with the 1 Big 1 (35). Before every Eusa show, the connexion man, Riddley, and the rest of the crowd confirm their shared journey through the phases:

> I said, 'Weare going aint we.'

The crowd said, ‘Yes weare going.’

I said, ‘Down that road with Eusa.’

They said, ‘Time and reqwyrt.’

I said, Where them Chaynjis take us.’

They said, ‘He done his time wewl do our time.’

I said, ‘Hes doing it for us.’

They said, ‘Weare doing it for him.’

I said, ‘Keap it going. Chances this time.’

They said, ‘Chances nex time.’

I said, ‘New chance every time.’

They said, ‘New chance every time.’ (44)

Going down the road with Eusa, the people are punished for the crime Eusa and his contemporaries committed against mankind and the Little Shynin Man. As a penance for the abuse of nuclear weapons, the people must now live in the miserable state they are in until finally chance restores them to their former place. At the same time, there is a more arcane addition to the Eusa mythology that describes how Eusa was tortured by the survivors after the destruction had taken place and moved from town to town until he returned to Cambry, where they asked him “’Why don’t you say Trubba not if you want in?’” (121). Conscious of his faults and the destruction he has caused, Eusa cannot say Trubba not, which translates as a general marker against ill will and for peace and trust. In response the guards kill him, after which Eusa’s head on a pole explains the rituals that Goodparley and Orfing still execute - the ritual questioning of the Ardship - with the promise that eventually, change will come: “’When the right head of Inland fynds the right head of Eusa the anser wil come and Inland wil rise up out of what she ben brung down to’” (122). From the different interpretations of this promise spring both the people’s passive suffering, waiting for their punishment to end,

as well as Goodparley desire to do anything to rise up out of the hardships. As noted before, Goodparley's obsessive and militant campaign leads to his downfall, as though from a sign from Eusa that the time is not yet right. However, it is simply his forceful method that comes to be resisted and his lust for the power to change things that destroys him in the end.

Weil acknowledges that the destruction that befalls those that abuse force may be interpreted as punishment, but stresses that it does not contain judgment. In this respect, it is important to note that in the *Iliad*, soldiers are compared to blind disaster. Those that have become intoxicated by force have lost the power to reflect on and control their actions, making them blind to consequences, morality and temperance. As the mind can only imagine destruction, the person possessed by force rages on, destroying everything in its path, including him- or herself. Individuals are turned into pure manifestations of force that act on violent impulse, blind to anything but destruction. Likewise, force itself is also blind. Although many people seek to control force, this is impossible. Force favours no one and everyone; it bestows its power on anyone, but may take it away at any time and turn against those it favoured earlier. Weil states that "[v]ictory is less a matter of valor than of blind destiny" (13), suggesting that heroism and power are not decisive in war. Moreover, "destiny" is blind; it is indiscriminate and may grant anyone victory and defeat. This blindness makes force incalculable at first glance**,** but also establishes some sort of equality, since in the end, everyone may be forced to bow down to force. Weil writes: "By its very blindness, destiny establishes a kind of justice" (14). This justice is not absolute or infallible, but because of its blindness it establishes a kind of balance; everyone who uses force will eventually be destroyed by it. Weil links this destruction to retribution, for although no one can escape force, those that used it and were transformed by it feel its punishment most. She writes: "This retribution, which has a geometrical rigor, which operates automatically to penalize the abuse of force, was the main subject of Greek thought" (15). Those who abuse force will not

escape their punishment, for although force is blind, it destroys anyone who comes into contact with it.

Weil identifies this with the idea of punishment of the wicked by a blind judge: “Blind is also she who decrees to warriors punishment in kind. He that takes the sword, perishes by the sword. The *Iliad* formulates this long before the Gospels did, and in almost the same terms: ‘Ares is just, and kills those who kill.’” (qtd. in Weil 14). However, this punishment is not the result of a judgment or moral code, as it is in Christian thought; Ares is not a reasoning judge, but a destructive force which does not think. Instead, it is more akin to the concept of Kharma, which Weil suggests is connected to the Greeks, who were “first of all, geometricians in their apprenticeship of virtue” (16). Since force destroys everyone that uses it, no one is condemned; force does not judge, it only destroys. Because of this, it can be considered “ geometrical,” as it is more like a law of nature than a conscious judge. This idea seems to be hardwired into nuclear war literature. The destruction brought about by mankind is a result of its own misuse of force, as logical result, inevitable because of the human desire for power and control. Nuclear weaponry, as the ultimate manifestation of force, was the final step, after which the consummation of the process was inevitable.

As has become clear, weapons are instruments of force. Just like humans become objects in the grasp of force, swords, guns and bombs are objects used by humans, usually in order to enhance their destructive power. In this light, weapons may be considered an extension of external force, since they increase the chance of successfully enslaving something else. The Oxford English Dictionary defines ‘weapon’ as “[a]n instrument of any kind used in warfare or in combat to attack and overcome an enemy.” To overcome refers initially to defeat an enemy in battle, but also implies that weapons do not stop working when the battle is fought. Indeed, nuclear weapons are as for now almost exclusively used as a deterrent. People have realised that it is useless to fight someone who is pointing a gun at

them. Weapons have become so powerful that they can provide an almost unbridgeable gap in power, reducing other sources of power, whether physical, intellectual or political, to minor influences. More than ever, people that possess the strongest weapons can control people without an actual fight, since the difference in power is too great to be crossed by using violence themselves. In the case of nuclear weaponry, this is their primary purpose: they were designed not to wage war, but to end and prevent it, as is pointed out by Howard Bruce Franklin. In his article "Fatal Fiction: A Weapon to End All Wars" (1991), Franklin places Truman's decision to use the atomic bomb on Japan in a tradition of American fantasies to prevent wars from happening by possessing the ultimate weapon. He uses *The Man Who Rocked the Earth* as an example of the fiction that would shape the idea of a weapon to end all wars. In this novel, a scientist who calls himself PAX has created a weapon that fires a radioactive beam and after a display of power claims that "either war or the human race must pass away forever" (qtd. in Franklin, 8). Franklin then summarises the dream of the ultimate weapon: "Of course in the fantasy it is war that becomes extinct. Faced with the peacemaker's atomic arsenal, the nations destroy their weapons, abolish armies, and form a world government to guarantee perpetual peace" (8). Similar to Wells's *The World Set Free*, nuclear power here establishes control via a World government that establishes a utopian world of science and peace.

Besides the ability to destroy, weapons thus have the ability to control. They are physical manifestations of force, instruments of enslavement. If the *Iliad* shows how people have desired to control others by means of force, modern history shows how far people are willing to go in order to achieve their goal and nuclear war literature shows what the results of these desires may be. The technological development of the modern age allowed for a radical increase in weapon power and thereby showed how force is intertwined with the human mind. However, the development of nuclear weapons, or weapons in general, may not be a

conscious decision. Considering that all weapons are essentially extensions of force, they might owe their development to the destructive nature of force. In a way, every instrument constructed to shape, destroy and create, both living and non-living, is part of the desire to control other objects. Force, "that *x* that turns anybody who is submitted to it into a *thing*" (Weil 3, original italics), manifests itself in the objectification of humans, but, as noted before in the discussion of Hegel's perception of force, in a larger sense it is any outside force that effects objects. The force that is wielded by people is not limited to the control of other people, but is even more often used to control other objects and use them. Any instrument that is used to facilitate or expand this process is therefore an extension of force, created by humans wielding it in order to control the outside world.

III

Martin Heidegger's influential essay titled "The Question Concerning Technology" (or, in the original German, "Die Frage nach der Technik," 1953) explores the essence of technology and shows remarkable similarities to the idea of instruments as extensions of force. In the essay, he aims to discover the essence of technology, which he does not find in the usual definitions. According to Heidegger, "[t]echnology is a means to an end," the instrumental definition, and "[t]echnology is human activity," the anthropomorphic definition, are both correct, but do not reveal the essence of technology (4-5). His next step is to identify what it is to be the "means to an end" by analysing its relation to the efficient cause, one of the four causes of classical thought. However, the one thing that unites the four causes, the material, formal, final and efficient, is that they together shape something that was not there before. Heidegger states: "[The four causes] let what is not yet present arrive into presencing. Accordingly, they are unifiedly ruled over by a bringing that brings what presences into appearance" (10). In his own translation of Plato's term *poiësis*, Heidegger calls this

"bringing-forth" (10): "Through bringing-forth, the growing things of nature as well as whatever is completed through the crafts and arts come at any given time to their appearance" (11). The bringing-forth of appearance is then renamed revealing. In the sense of bringing-forth, revealing entails any alteration of shape that is induced onto an object by either natural causes or conscious intervention from human arts and crafts. Heidegger argues that technology, as a means of revealing, is not simply a tool for an end, but becomes an instrument for revealing. He also points out that the Greek word for revealing, *alëtheia*, is translated into Latin as *veritas*, or "truth." Thus, revealing does not deal solely with physical shape shifting, but also abstract transformation. Heidegger states:

> Instrumentality is considered to be the fundamental characteristic of technology. If we inquire, step by step, into what technology, represented as means, actually is, then we shall arrive at revealing. The possibility of all productive manufacturing lies in revealing. Technology is therefore no mere means. Technology is a way of revealing. If we give heed to this, then another whole realm for the essence of technology will open itself up to us. It is the realm of revealing, i.e., of truth. (12).

The essence of technology is not to facilitate an end, but to enable bringing-forth. Bringing-forth is an crucial step in investigation, or in other words, the search for truth.

Now that revealing has been established as the primary function of technology, Heidegger turns his attention to modern technology. He finds the primary difference between technology as defined above and modern technology in its manner of revealing: "(...) the revealing that holds sway throughout modern technology does not unfold into a bringing-forth in the sense of *poiësis*. The revealing that rules in modern technology is a challenging, which puts to nature the unreasonable demand that it supply energy that can be extracted and stored as such" (15). Challenging-forth, in contrast to bringing-forth, orders upon the object that is transformed and the subject that transforms it. It "sets upon" the object and forces it to change

and yield as much as possible. Although the difference in attitude between bringing-forth and challenging-forth seems distinct, the difference in practice is less clear; both processes stimulate a revealing desired by the subject. Heidegger illustrates the difference with two examples, on agriculture and the hydro-electric dam in the Rhine. In the first example, Heidegger shows the difference between passive bringing-forth and active challenging:

> The work of the peasant does not challenge the soil of the field. In the sowing of the grain it places the seed in the keeping of the forces of growth and watches over its increase. But meanwhile even the cultivation of the field has come under the grip of another kind of setting-in-order, which *sets* upon nature. It sets upon it in the sense of challenging it. Agriculture is now the mechanized food industry. Air is now set upon to yield nitrogen, the earth to yield ore, ore to yield uranium, for example; uranium is set upon to yield atomic energy, which can be released either for destruction or for peaceful use. (15, original italics)

Heidegger suggests that it is the setting-upon, with a forceful extraction of resources, that discriminates between the two. In traditional farming, the seed was not forced to grow, but its growth was optimised by creating ideal circumstances. In mechanised agriculture, the soil is considered as a part of the food industry and is ordered to meet the demand of the industrial process. Similarly, other objects are considered as parts of the industrial process and are set upon to yield their resources. Following Heidegger's thought, the air and earth would not bring forth their resources if not forced to do so by challenging-forth.

Heidegger's reasoning seems sound, but when examined closely becomes increasingly unclear. For example, the boundary between bringing-forth and challenging-forth may disappear if the peasant, who supposedly allows the seeds to grow on their own, fertilises and waters the soil and uses the same piece of land several years in a row. In that case, the seeds are ordered to grow and the land is set upon to produce as much as possible. Albeit in a less

mechanical and immediately destructive way, the farmer still aims to acquire the resources of nature as effectively as possible. The difference, then, does not lie in the "unreasonable demand," since both the peasant and modern agriculture seek to maximise the amount of resources that is won from the soil.

The second example, the hydro-electric dam in the Rhine, initially does not solve the problem either. Heidegger writes:

> In the context of the interlocking processes pertaining to the orderly disposition of electrical energy, even the Rhine itself appears as something at our command. The hydroelectric plant is not built into the Rhine River as was the old wooden bridge that joined bank with bank for hundreds of years. Rather the river is dammed up into the power plant. What the river is now, namely, a water power supplier, derives from out of the essence of the power station. In order that we may even remotely consider the monstrousness that reigns here, let us ponder for a moment the contrast that speaks out of the two titles, 'The Rhine' as dammed up into the *power* works, and "The Rhine" as uttered out of the *art* work, in Hölderlin's hymn by that name. (16, original italics)

Although the dam certainly places a more radical demand on the river than a wooden bridge, a ferry or a waterwheel, this is not a difference in attitude, but a difference in the possibilities of the tools. When compared to exploitation of soil, the dam might even be considered less "monstrous." In a critical evaluation of Heidegger's essay, David I. Waddington argues: "Heidegger does not hate the dam because it physically damages the river; instead, he hates it because it *reduces* the river. Subsumed under both the idea and the material fact of the hydroelectric dam, the river no longer *stands on its own*" (573, 2005, original italics). The river must yield its power to the dam and thereby loses its autonomy. It is no surprise then that Waddington links this to slavery:

> The person whose nature is subsumed under that of another has been *reduced*—reduced to slavery. No standing or dignity remain for the slave; 'he' or 'she' has been reduced to an 'it'. The slave, regarded as slave, is a mere piece of property that is disposable in both the technical and conventional senses of disposability (…). Laboring under the material and conceptual mastery of the dam, the river has also been *reduced* to slavery. It no longer stands on its own; it is merely a piece of property to be manipulated. (573, original italics)

The characteristics that Waddington attributes to slavery are similar to those of Weil. Both mention the reduction of a person to an "it" and the loss of control over the self. However, Waddington's interpretation of Heidegger adds another feature: disposability. Even although slaves, or enslaved nature, may be valuable in many ways, the total control over objects leads to the idea that everything can be replaced. The belief that objects are disposable and replaceable may be the next step in objectification. In any case, those that control others by force are blind to the consequences of slavery on the slaves or the objects. The idea that they are replaceable may stem from short-sightedness brought about by the intoxication of force.

However, the process of slavery reduces objects even further. Heidegger continues his essay by introducing the term " standing-reserve" (17). Everything that is ordered to reveal itself in the process of revealing is standing-reserve, since it is perceived as a resource awaiting further processing. This perception, as discussed above, reduces objects to disposable resources. Heidegger writes: "Whatever stands by in the sense of standing-reserve no longer stands over against us as object" (17). Awaiting further processing, objects are no longer objects in their own right, but are part of the technological process of challenging-forth. As such, the river Rhine is no longer the river, but only the supplier of power to the dam. This is the next step in objectification, as Waddington observes: "Therefore, in a sense, whatever is reduced to standingreserve is no longer an *object* because it has been completely

subsumed under the material and conceptual reign of the *subject*. A kind of *objectlessness* results—the only significance these objects have is that they are the property of the subject" (574, original italics). Objectless becomes the final step in the process that Weil described as objectification: after a living being is reduced to an object, it can be reduced even further into objectlessness, when it is no longer perceived as something standing on its own, but as a part of that which controls its movement. Although Weil does not call this objectification, she observed the same process. After all, she describes soldiers as "men who have undergone a transformation, who have dropped either to the level of inert matter, which is pure passivity, or to the level of blind force, which is pure momentum" (26). In both instances, they are no longer objects standing on their own, but are part of the movements of force and are therefore considered not as an individual, nor as an object, but as force. Drops of water together form the body of water of the river, but when running downstream, they are no long considered as drops of water, but as a part of the river.

Despite of the fact that Heidegger's essay on technology initially only investigates how people challenge-forth nature and turn it into standing-reserve, he gradually moves into a field that shows remarkable similarities with Weil's essay on force as a central influence in human enterprise. Heidegger argues that mankind is not in charge of revealing, since revealing is a part of the world that does not need human setting-upon. Revealing and concealing may happen due to human activity, that is technology, but it is not dependent upon it. Furthermore, mankind itself is a part of the ongoing revealing of the world. Heidegger even argues that human revealing is ordered by nature: "(...) when man, investigating, observing, ensnares nature as an area of his own conceiving, he has already been claimed by a way of revealing that challenges him to approach nature as an object of research, until even the object disappears into the objectlessness of standing-reserve" (19). In other words: since mankind has been "claimed" by revealing, people are resources in the process of revealing; mankind is

standing-reserve in the process of revealing nature. This kind of standing-reserve ranges from individual labourers that are part of a chain of resources (Heidegger's example is a forester, "commanded by profit-making in the lumber industry" (18)) to the human race as a whole, as a part of revealing nature.

Heidegger introduces the term "Enframing" (Ge-Stell, 19) as a denominator of the process of setting-upon and challenging-forth into revealing. Mankind is a part of the process of Enframing and modern technology is, in essence, Enframing. It is the practice of Enframing, through technology, that makes mankind perceive nature as a standing-reserve, as resources: "The essence of modern technology starts man upon the way of that revealing through which the real everywhere, more or less distinctly, becomes standing-reserve" (24). It is this perception that leads to the desire to control nature and control all objects, a feeling which Heidegger explains, but also condemns, as was clear in his example of the Rhine. He goes on to connect the human revealing to a "destining," since the human revealing is part of the process of revealing on a much larger scale. However, this destining should not be a compulsion, but a balanced willingness to reveal: "Always the unconcealment of that which is goes upon a way of revealing. Always the destining of revealing holds complete sway over man" (Heidegger 25). The desire to control objects and use them, in short, Enframing, dominates the modern way of thinking. The sway that destining holds over man is reminiscent of the control that force has over those who exercise it. Indeed, technology seems to have taken control over people. Like the force that Weil described, the desire to control and use force to control has led to the development of technologies, in the sense of means of revealing, that allow this kind of control. Thus, the danger of technology lies within the perception that everything can and must be controlled: "The threat to man does not come in the first instance from the potentially lethal machines and apparatus of technology. The actual threat has already affected man in his essence" (28). Nuclear weapons are the ultimate

manifestation of this misguided technological perception: they are the most powerful instruments of control, of enslavement; they force entire countries people into either a passive state of obedience or an active state of blind destruction. From this perspective, Heidegger's notorious remark, which connects agriculture to death camps, makes sense: "Agriculture is now a motorized food industry—in essence the same as the manufacture of corpses in the gas chambers and extermination campus, the same as the blockading and starvation of nations, the same as the manufacture of hydrogen bombs" (qtd. in Waddington, 577). All these processes are expressions of the desire to control (soil and food in the first, people in the other three) and are therefore in essence the same. Nuclear weapons, the "insane actors" that Amis describes in "Thinkability" are part of the destining of setting-upon nature, until it is sucked dry, or until the human race has destroyed itself. Opposite to the revealing that Heidegger sees as the essence of technology, nuclear weapons, as a result of the perception of setting-upon nature and enslaving objects, will only destroy: "Nuclear weapons could bring about the Book of Revelation in a matter of hours; they could do it today. Of course, no dead will rise; nothing will be revealed (*nothing* meaning two things, the absence of everything and a thing called *nothing*)" (26). The end of the world by nuclear war seems an inevitable consequence of the way that people see the earth and see themselves. As noted before, writers like Wells, Shute, Hoban and Golding feel that war, nuclear war, seems inherent to the way that people perceive the world and seek force to control others. The influence of force and nuclear weapons pushes people towards a self-destructive end.

However, this pessimistic view is almost exclusively accompanied by a hope or solution to the current problem. As Russell writes in *Common Sense and Nuclear Warfare*: "Our present courses lead inevitably, sooner or later, to the extinction of the human species. We are not *doomed* to persist in the race towards disaster. Human volitions have caused it, and human volitions can arrest it" (28, original italics). Russell appeals to common sense in

order to stop the current course that leads to nuclear war. After introducing the state of nuclear policy and thought, Russell posits three theses that leave only one option:

> A large-scale nuclear war would be an utter disaster, not only to the belligerents, but to mankind, and would achieve no result that any sane man could desire.
>
> When a small war occurs, there is a considerable risk that it may turn into a great war; and in the course of many small wars the risk would be ultimately become almost a certainty.
>
> If all existing nuclear weapons had been destroyed and there were an agreement that no new ones should be manufactured, any serious war would, nevertheless, become a nuclear war as soon as the belligerents had time to manufacture the forbidden weapon.
>
> From these three theses, it follows that, if we are to escape unimaginable catastrophes, we must find a way of avoiding all wars, whether great or small and whether intentionally nuclear or not." (29)

He realises that disarmament is no option until relationships have improved and urges governments to realise that nuclear war is the enemy of everyone and cannot be won. By analysing the most recent data of the time, Russell concluded that a nuclear war would destroy the world to such an extent that mankind would be destroyed (22-8). His book is an attempt to make people aware that the existence of nuclear weapons has made war impossible: "Each side has vital interests which it is not prepared to sacrifice. Neither side can defeat the other except by defeating itself at the same time. The interests in which the two sides conflict are immeasurably less important that those in which they are at one. The first of their common interests is survival. This has become a *common* interest owing to the nature of the nuclear weapons" (31-2). According to Russell, the only way to prevent nuclear war is to prevent all war, which he thinks is only possible if an international organisation, or even more preferable, government, would be established. Russell's attempt to solve the nuclear crisis is

similar to Wells's, who also appeals to the reader to recognise the disastrous consequences of the situation at the time, by condemning his age and showing these consequences in *The World Set Free*. Like Russell, Wells envisions a World government that can establish peace and welfare due to common sense. However, both Russell and Wells recognise the binding grip of force and the effects it has on human affairs. Once force has bereft people of their common sense, it is impossible to think clearly. Trapped in a circle of threats and violence, people cannot simply disarm. In *The World Set Free*, the world realises it has to change only after the nuclear war has nearly destroyed the earth. However, Wells was unable to see that a nuclear war of that scale would destroy the human species altogether.

Heidegger's solution to force's control over people, or in his words, the destining to Enframe, is a change in attitude towards technology. In order to avert the destruction of the earth by technology, he suggests that instead of obeying destining, man should listen to it. In a continuation of the lines quoted above, Heidegger states:

> Always the unconcealment of that which is goes upon a way of revealing. Always the destining of revealing holds complete sway over man. But that destining is never a fate that compels. For man becomes truly free only insofar as he belongs to the realm of destining and so becomes one who listens and hears, and not one who is simply constrained to obey. (Heidegger 25)

When mankind understands how they are moved into Enframing and the desire to control, they are able to listen to it, instead of blindly obeying it. According to Heidegger, technology, as a means of revealing, is not inherently evil, but has been corrupted by the attitude that is only a part of revealing: the setting-upon:

> The essence of modern technology lies in Enframing. Enframing belongs within the destiny of revealing. These sentences express something different from the talk that we hear more frequently, to the effect that technology is the fate of our age, where

> 'fate' means the inevitableness of an unalterable course. But when we consider the essence of technology, then we experience Enframing as a destining of revealing. In this way we are already sojourning within the open space of destining, a destining that in no way confines us to a stultified compulsion to push on blindly with technology or, what comes to the same thing, to rebel helplessly against it and curse it as the work of the devil. Quite to the contrary, when we once open ourselves expressly to the *essence* of technology, we find ourselves unexpectedly taken into a freeing claim. (25-6, original italics)

The inevitability of the current human course, and thus its demise, is denied by Heidegger, who argues that the essence of technology, revealing, is not about controlling, but about truth. The change that is necessary in order to prevent further destruction is a change in attitude: the desire to control, whether nature, objects or people, should be abandoned. Instead, people should aim to reveal truth (Heidegger 34).

Weil pleads for a similar change of attitude in her essay, but with less optimism than Heidegger. Even though force destroys everyone who comes into contact with it, it is possible to prevent force from completely destroying oneself if one does not desire to control. The only means of resisting force are through reason and balance. According to Weil, it is no coincidence that both are held in high esteem in Greek philosophy, which was well aware of force. However, this is not an easy task: "A moderate use of force, which alone would enable man to escape being enmeshed in its machinery, would require superhuman virtue, which is as rare as dignity in weakness" (20). Moderate force seems conflicting at first, since force is not moderate at all. However, since neither extreme violence nor total submission prevent destruction and control by force, the only solution lies in the balance between the two. Ideally, one should actively take control of life, but without extending force too far. Weil's essay pleas for this reasonable use of force, limited to the minimal, without giving in to either

misuse of or abuse by force. In the *Iliad*, this ideal is never quite reached, because "failing everything else, there is always a god handy to advise him to be unreasonable" (21). During wartime, force crushes reason and balance. As argued above, fear and death cripple the mind and render it unable to think outside of the circle of victory and defeat. Force cannot be controlled and will eventually destroy everyone it comes into contact with. Both those who use it for their own gain and those who submit to it lose control over themselves, either physically, mentally, or both. Weil concludes:

> [The subjection of the human spirit to force] is the common lot, although each spirit will bear it differently, in proportion to its virtue. NO one in the *Iliad* is spared by it, as no one on earth is. NO one who succumbs to it is by virtue of this fact regarded with contempt. Whoever, with his own soul and in human relations, escapes the dominion of force is loved but loved sorrowfully because of the threat of destruction that constantly hangs over him." (33)

As long as there are people who want to control, no one will be able to escape force permanently. Weil's analysis of force is a warning to all, especially those who plan to use violence in order to take control. They will be destroyed by force, "[f]or they do not see that the force in their possession is only a limited quantity; nor do they see their relations with other human beings as a kind of balance between unequal amounts of force" (15). Nuclear weapons are the supreme symptom of force: extremely immoderate, forcing their enemies into passivity and intoxicating their wielders, destroying blindly and indiscriminately, thereby evoking a strange kind of equality, but most of all, insanely destructive, destroying all who are affected by it.

In *The World Set Free*, the atomic war is able to shock the leading people of the world into a change of attitude. During the conference, it becomes clear that the leaders have understood that the old views will destroy the world and are able to change:

> For a time the whole world had been shocked into frankness; nearly all the clever people who had hitherto sustained the ancient belligerent separations had now been brought to realise the need for simplicity of attitude and openness of mind; and in this atmosphere of moral renascence, there was little attempt to get negotiable advantages out of resistance to the new order. Human beings are foolish enough no doubt, but few have stopped to haggle in a fire-escape. (3.5).

For Wells, the only way to change the view of Enframing, of control and profit, is a disaster of a such a magnitude that the old system is nearly dismantled. On the edge of total annihilation, people realise change is necessary and follow the ideals of Leblanc and Egbert, who desire a world state of unity, in which nothing is property and people are free. People are no longer ruled by others, but work together under the banner of science:

> 'Science,' the king [Egbert] cried presently, 'is the new king of the world.'
>
> 'OUR view,' said the president, 'is that sovereignty resides with the people.'
>
> 'No!' said the king, 'the sovereign is a being more subtle than that. And less arithmetical. Neither my family nor your emancipated people. It is something that floats about us, and above us, and through us. It is that common impersonal will and sense of necessity of which Science is the best understood and most typical aspect. It is the mind of the race. It is that which has brought us here, which has bowed us all to its demands....'

King Egbert defines science as a power, “the will and the sense of necessity” that flows through people and directs them towards truth: the power that Heidegger calls technology and King Egbert names Science. Wells considers science as the essence and purpose of mankind and that in which it will find fulfilment. It is the revealing of the secrets of the earth, without the desire to control it and, in Heidegger’s terminology, setting upon it.

This ideal of science is not without risks, since it needs Enframing in order to flourish. Nature must to some extent be considered as a resource, a standing-reserve, to enable revealing. Therefore, Heidegger argues that Enframing is dangerous, but contains a "saving power" (32), since it allows mankind to approach their essence by means of revealing:

> On the one hand, Enframing challenges forth into the frenziedness of ordering that blocks every view into the coming-to-pass of revealing and so radically endangers the relation to the essence of truth.
>
> On the other hand, Enframing comes to pass for its part in the granting that les man endure – as yet unexperienced, but perhaps more experienced in the future –that he may be the one who is needed and used for the safekeeping of the coming to presence of truth. Thus does the arising of the saving power appear. (33)

Humans are destined to reveal and science offers the means to practice this revealing, which brings people close to their essence. The experience of man's essence is the saving power that offers a solution to the forceful challenging-forth of Enframing and an alternative to the desire to control. However, in order to practice revealing, people must set-upon nature and bring forth its resources. As noted before, the boundary between bringing-forth and challenging-forth is thin, which makes all revealing a risky process. In Wells's novel, atomic power is the ultimate manifestation of challenging-forth, as it forces atoms to yield their energy for human use. This energy is then used for profit and destruction, which brings the human race near extinction. Nevertheless, atomic power is also crucial in the establishing of the utopian world government and the age of science that follows. The control of increasing amounts of nuclear power is essential to Wells's ideal society, but is also its greatest enemy; if the balance of bringing-forth is disturbed, the increased nuclear power will destroy the world.

In Hoban's view, humanity will not live through nuclear disaster so gloriously. In *Riddley Walker*, there is no utopian world government, but only a shadow of the earlier world.

But despite the dark circumstances, Riddley formulates the most insightful view concerning force. In a world that is dominated by the search for power and where everyone is affected by the force of long-gone nuclear power, Riddley manoeuvres between different beliefs and is able to construct his own belief. The second time Riddley travels to Cambry and is possessed by the power there, he realises that before, his mind was full of desire to find the power:

> Back then I ben thinking on the Power of the 2 and the 1 and the Hy Power what ben wooshing roun the Power Ring time back way back. The 1 Big 1 and the Spirit of God. My mynd ben all binsy with myndy thinking. (…) Now I dint want nothing of that. (…) I wernt looking for no Hy Power no more I dint want no Power at all. (…) I cud feal some thing growing in me it wer like a grean sea surging in me it wer saying, LOSE IT. Saying, LET GO. Saying, THE ONLYES POWER IS NO POWER.

The rejection of the desire to control power is Riddley first step towards his own view and it saves him from the fate of Goodparley, Granser and Lissener, who all perish in their quest for power. Riddley later completes the idea, when he feels the Power possess him again:

> Feal the goast of old Power circeling hy over me. Only this time I fealt a Power in me what circelt with it. Membering when that thot come to me: THE ONLYES POWER IS NO POWER. Wel now I sust that wernt qwite it. It aint that its no Power. Its the not sturgling for Power thats where the Power is. Its in jus letting your self be where it is. Its tuning in to the worl its leaving your self behynt and letting your self be (…). (197)

His new understanding of force is expressed by his new interpretation of the Eusa story, going through the Master Chaynjis without the desire to control. He is able to understand the balance between activity and passivity: “Sum tymes bytin and some tyms bit” (197, 206). This is the balance of virtue that Weil describes as the only possible way of dealing with force appropriately, if you face it: “Only he who has measured the dominion of force, and knows how not to respect it, is capable of love and justice” (35). Since force dominates Inland it

cannot be escaped, but those who are able to resist it gain insight into how everybody is affected by force and can therefore understand justice and love.

This is the revealing of which Heidegger speaks, the unconcealing of truth. On the last pages of *Riddley Walker*, Riddley begins his career as an artist, performing puppetry shows with the old puppets that Goodparley hid. These puppets are different from those of the Eusa show and therefore allow Riddley to explore his own ideas freely: "Riddley's itinerant Punch show expresses his understanding of the human search for truth. He has abandoned the quest for dualistic knowledge and power in favor of '1st knowing' and the sense of unity between himself and Nature" (Branscomb 112). Because of his insight into the forces that affect him and his rejection of the need to command and control, Riddley can continue revealing, whereas the others have been destroyed by force. As Heidegger stated, the insight into human destining and the dangers of Enframing have saved Riddley.

Art here is also a way of searching for truth, like the uncovering of technology. At the end of his essay, Heidegger concludes that technology, as revealing, is not restricted to crafts and machinery: "There was a time when it was not technology alone that bore the name *technë*. Once that revealing that brings forth truth into the splendor of radiant appearing also was called *technë*. Once there was a time when the bringing-forth of true into the beautiful was called *technë*. And the *poiësis* of the fine arts also was called *technë*" (34). Weil's warning about force, a destructive, blind and petrifying power that controls and destroys everything it faces has been acknowledged throughout twentieth century artists such as Hoban, Amis, Golding, Shute and Wells. However, most of them predict that it is only after force has driven technology past the point of no return that the human race will realise their mistakes. As nuclear apocalypse, in both its meanings, fails to occur while the power of nuclear weapons increases over time, the chance of surviving nuclear war diminishes, as does the possibility of learning from it. Derrida points out that in order to understand the influence

of nuclear weapons, their capacity to destroy the world must be investigated in advance, which makes nuclear war textual, fictional. Only this process of fictional investigation, the revealing of the truth of nuclear weapons, will reveal them as a manifestation of the force that dominates and controls people. The novels that express the force that controls through nuclear weaponry continue Weil's quest for the awareness of force in the light of its most destructive manifestation. Yet.

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