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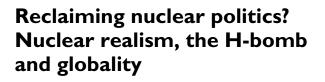Additional services and information for *Security Dialogue* can be found at:

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Reclaiming nuclear politics? Nuclear realism, the H-bomb and globality

Rens van Munster

Danish Institute for International Studies, Copenhagen, Denmark

Casper Sylvest

Department of History, University of Southern Denmark, Denmark

Abstract

As nuclear weapons are again becoming the subject of critical scholarship and progressive activism, this article seeks to widen the perspective of critical security studies in relation to nuclear weapons and to provide a better understanding of the historical precursors of current ambitions. We do so by focusing on the central decade of the thermonuclear revolution (ca 1952–1963) and on a body of thought we term 'nuclear realism'. Nuclear realists were united by the central conviction that liberal modernity could survive collective suicide only by radically rethinking and transforming its foundations. Günther Anders, John Herz, Lewis Mumford and Bertrand Russell take centre stage, and we highlight that the central pillars in their project of nuclear critique was a dissection of the legacy of the Enlightenment and an incisive examination of its implications for (international) politics in the nuclear age. These dimensions came together in their critique of the prevailing concept of deterrence. In an attempt to reclaim nuclear politics for a wider public, nuclear realists stressed the absolute centrality of imagination as a strategy for unmasking the power and rationality of a growing national security establishment, on the one hand, and bringing a distinct, alternative vision of global politics and security into view, on the other. This comprehensive yet multifaceted project, while afflicted by its own challenges, is deeply relevant for today's nuclear politics.

Keywords

critical security studies, deterrence, globality, imagination, nuclear realism, nuclear weapons

Introduction

Among activists, former Cold Warriors and contemporary leaders in world politics, there is a resurgent interest in nuclear disarmament. Whether based on moral convictions or on the belief that nuclear deterrence has become obsolete in an age of proliferation, the commitment to 'seek the peace and security of a world without nuclear weapons',[1] as current US President Barack Obama has phrased it, may well represent an important shift in world politics (Senn and Elhardt, 2013).

Corresponding author:
Rens van Munster.
Email: rmu@diis.dk

Unfortunately, the field of critical security studies, which claims an interest in emancipatory transformation, demilitarization and desecuritization, has been slow to catch up with these developments.[2] Things may be changing, however. Perhaps in association with well-grounded fears that the current agenda may focus too much on maintaining US hegemony and too little on creating world security (Craig and Ruzicka, 2013), critical security studies scholars have come to recognize that the ideology of 'global zero' may provide an opportune moment for wresting nuclear weapons from the tight grip of strategy (Burke, 2009; Hanson, 2007).

Although we agree with the need to study nuclear weapons in ways that contrast with traditional axioms of strategy – an approach that tends to reproduce a politically fragmented world capable of self-extinction – we take issue with the inadequate attention to history on display in current attempts to formulate 'new' vocabularies with which to engage the military, political, scientific and moral implications of these weapons. In this article, we therefore provide a historical analysis aimed at recovering, re-evaluating and synthesizing an important yet generally overlooked body of critical thinking about nuclear weapons in the central decade of the thermonuclear revolution (ca 1952–1963). We label this body of thought 'nuclear realism', which refers to a way of digesting the nuclear revolution that is bound together by the central conviction that liberal modernity could survive collective suicide only by radically rethinking and transforming its foundations. Our main focus is on four nuclear realists – Günther Anders (1902–1992), John H. Herz (1908–2005), Lewis Mumford (1895–1990) and Bertrand Russell (1872–1970) – who were not just quicker to recognize the implications of the thermonuclear revolution than most of their contemporaries; their prewar interest in the matrix of political organization, freedom and technology led them to broader, more incisive and ultimately more interesting lines of questioning than most nuclear political thought of their time – and indeed ours.

That does not mean that their ideas can be transferred straightforwardly to our context; rather, the historical approach taken here is based on the belief that the study of political thought is itself a form of critical theorizing, since it aims to bring to our attention beliefs, ideas and arguments that are original and useful (see e.g. Palonen, 2002). Two caveats are in order. First, nuclear realism did not constitute a research programme or a school with card-carrying members. It is an analytical construction on our part that serves to bring a neglected body of ideas into focus. Accordingly, in this article we are mainly focused on drawing out the common ground between nuclear realists. Second, in making this point, it should also be clear that we do not provide a comprehensive analysis of critical thinking about nuclear weapons during the thermonuclear revolution. Still, the value of the approach presented here is considerable. We offer two contributions and a challenge to critical security studies.

First, revisiting nuclear realism questions received disciplinary narratives and prompts contemporary critical security studies to re-examine its political and theoretical commitments. Zooming in on nuclear realism makes it evident that critical security studies has missed the diversity of intellectual responses to the nuclear revolution. While oppositional voices are rarely included in conventional narratives of the golden age of strategic studies (1955–1965) (e.g. Baldwin, 1995), recent work by critical scholars also has its limitations. A recent history of security studies and a new introduction to critical security studies both see critical work as a product of peace studies, a field that emerged in the mid-1960s (Buzan and Hansen, 2009; Peoples and Vaughan-Williams, 2010). Powerful scholarly dynamics are at work in such renditions of intellectual history (Gusterson, 2012). Revisiting the early nuclear age can destabilize existing narratives by contextualizing the 'originality' of strategic studies, on the one hand, and enlarging our understanding of the ancestry of critical security studies, on the other.

Second, taking a broader purview of the genealogy of contemporary critical security studies directs attention to how nuclear realists examined the entire matrix of technology, war

and modernity. This is highly relevant for ongoing engagements by critical security studies with weapons technology, politics and security (e.g. Bourke, 2012). In particular, the insight that the deeply depoliticizing implications of nuclear weapons required the cultivation of imagination – understood as the ability to think (of) the future not merely as a condition to be managed but also, and more importantly, as a subject of political contestation and decision – remains valuable at a time when portrayals of apocalyptic nuclear risks associated with terrorism are contributing to the increasing securitization of everyday life and our common future (Aradau and van Munster, 2011). Moreover, the concern of nuclear realists with a particular form of science and rationality, their critique of the paradigm of national security, and their attempt to harness critique for the double purpose of providing individual security and freedom and developing a sense of globality and common humanity clearly anticipated arguments in contemporary critical security studies (Booth, 2007; Burke, 2009).

Finally, reviving nuclear realism is also an invitation to break down some of the theoretical walls that continue to exist between critical security studies and political realism. As suggested by the labels 'postmodern realism', 'utopian realism' and 'emancipatory realism' that prominent critical security studies scholars have applied to their work,[3] critical security studies has strong links to – indeed overlaps with – forms of political realism. At the same time, however, the diversity and insights of realism are rarely brought fully into view, partly because it has also become fashionable to define critical security studies in opposition to realism (Browning and McDonald, 2013; Klein, 1994; Peoples and Vaughan-Williams, 2010). Drawing on contemporary political theory and revisionist work in international relations theory, we argue that nuclear realism offers an opportunity for critical security studies to move beyond the stereotype and explore realist thinking more thoroughly.

We proceed in three steps. The first section sketches the contours of nuclear realism and the attempt to come to grips with the legacy of the Enlightenment in the climate of postwar desolation. While many strategists saw nuclear war as a problem to be managed through the application of rationalist principles, nuclear realists grew sharply critical of such an approach. The following section sketches how their alternative assessment of military force in the thermonuclear age led to radically different conclusions about the role and place of war, the balance of power and diplomacy in international relations. We then examine the powerful nuclear realist critique of the dominant strategic paradigm of their time, deterrence, and its underlying knowledge economy. Ultimately, nuclear realists claimed nuclear weapons technology required a political imagination that would transcend national frameworks. The final section briefly sketches these globalist visions and concludes that, despite some manifest limitations, nuclear realism provides a contribution to our historical understanding of the thermonuclear revolution, as well as vital inspiration for current attempts to critique and transform nuclear weapons politics.

Nuclear realism and the limits of the Enlightenment

Political realism is a much-contested tradition. Its closeness to the practical world of politics – with all its social imperfections and murky dealings – has often led to the charge that realism is a cynical or conservative tradition aimed at preserving the status quo. While it does indeed evoke a sense of practicality and anti-idealism, it would nonetheless be wrong to reduce the meaning of political realism to the amoral pursuit of power. Rather, it reflects the central realist contention 'that *context* is an essential, even determinative, starting point of political action and judgment' (Mantena, 2012: 464, emphasis in original). Most forms of political realism that are or have been formulated and defended in practice have been informed by visions and values without which political realism would indeed be a mere corrective. As E.H. Carr (1939: 113) already intoned in 1939, a pure

realism would exclude 'four things which appear to be essential ingredients of all effective political thinking: a finite goal, an emotional appeal, a right of moral judgment and a ground for action'. The impossibility of reducing political realism to simple formulae may help to explain why the tradition has currently come under such intense scrutiny. In international relations, such scholarship has centred on 'classical realism' and has served to deepen our understanding of realism's historical legacy; pointed to its conventionally disregarded, often progressive, dimensions; and highlighted its attractive, if elusive, profundity (Scheuerman, 2011; Williams, 2013; see Bell, 2008, for an overview). In a separate development, scholars in political theory starting from a dissatisfaction with the increasingly abstract character of (liberal) political theory have begun to outline the contours of a political realism that squarely confronts politics – instead of reducing it to high-minded ethics – while remaining attentive to the role of moral considerations (Geuss, 2008, 2010; Williams, 2005; see also Scheuerman, 2013). Realism, then, is in flux, which in itself constitutes an opportunity to reassess and broaden our view of realism in politics.[4]

A good starting point in thinking about realism is the contention that it must take into account reliable knowledge about the world, accept political necessity in some measure and display a sense of practical possibility in discussing change (Berki, 1981). This 'synthetic' view allows for political realism*s* that in different contexts balance these dimensions in different ways, in the process risking the loss of their balance and realist character. Nuclear realism as conceived in this article is one such manifestation of realism; it is a historical product of the postwar decades and does not exhaust the notion of political realism. Moreover, nuclear realism is an analytical category. Although the group we are examining here includes a self-professed realist liberal (Herz), none of the individuals concerned described themselves as nuclear realists. By the same token, the label is not an exclusive one.[5] Yet, as we highlight below, Anders, Herz, Mumford and Russell were deeply engaged in struggles over what was real, necessary and possible during the thermonuclear revolution. In this process, they displayed strong affinities with a form of realism that seeks to formulate 'an ethico-political response to the visceral combination of industrial warfare, mass democracy, mechanized genocide, nationalism, global capitalism, and the development of unprecedented technologies of mass destruction' (Bell, 2008: 5). Moreover, given the absolute materiality of nuclear weapons and the political context in which they existed at the height of the Cold War, the insights of nuclear realists have a good claim to be about reality, particularly in comparison with the curiously abstract and unreal edifice of strategic thought during these years. Indeed, some of their conclusions were later echoed by realists like Hans Morgenthau and Reinhold Niebuhr (Craig, 2003). Finally, the nuclear realist search for new forms of politics was accompanied by an appreciation of the central role of power, passion and evil in politics and a deep concern with the causes, prospect and potential consequences of great power war. In short, central characteristics of political realism were on display in this kind of thinking.

Nuclear realism had a distinct radical and activist bent.[6] United in their view that the thermonuclear revolution symbolized the uncanny climax of a world gone awry, during the 1950s nuclear realists developed an important, oppositional and resolutely global strand of political thought that reached far beyond the confines of strategic studies and national security policy. Nuclear realist thinking included a critique of dominant approaches to war and military force in the face of large-scale destruction, reflections on the meaning and implications of 'national security', and attention to the far-reaching encroachments that nuclear state apparatuses and the increasing militarization of social life involved, as well as an attempt to rethink the relationship between liberty and political authority. In short, if it is indeed true 'that a society's "threshold of modernity" has been reached when the life of the species is wagered on its own political strategies' (Foucault, 1979: 143), nuclear realism can be viewed as a critical response to modernity's most poignant expression: the nuclear age.

It is characteristic of nuclear realists that they had long been interested in the role of science and technology in the modern world. They did not always see eye to eye on this issue, but during the thermonuclear revolution their thinking increasingly converged as they came to see the nuclear age as the climax and symbol of an apparently relentless expansion of technology. While they could come across as romantics, they were not anti-modern. A return to a pre-modern world was not an option. Nuclear realists sought, rather, to temper and transform the short-sighted, narrow and instrumental mindset that had come to govern society. During the thermonuclear revolution, matters of war, security and survival took on a special importance. But nuclear realists also had a sharp eye for a range of other, related transformations that technology and its underlying rationality encompassed – for example, social acceleration and various forms of estrangement that could be detected in the activity of work, in cultural products and in democratic practices. Indeed, their thinking points to the importance of questioning instrumentalist views of technology or attempts to isolate its effects in narrow domains, something of obvious relevance to the ongoing (re)turn to such matters in critical security studies (see e.g. Aradau, 2010; Peoples, 2010; see also Sylvest, 2013).

The thermonuclear revolution, then, was embedded in modern civilization, which had also made the horrendous acts and events of the 20th century possible. For nuclear realists, atomic and especially hydrogen bombs were more than 'an unintended consequence of the scientific enlightenment' (Walker, 2007: 431) – they were made possible by science, technology and rationality. In that sense, nuclear realists agreed with Adorno's ([1966] 2005: 320) famous remark that 'there is no universal history leading from savagery to humanitarianism, but there is one leading from the slingshot to the megaton bomb'. In terms of the conceptualization of security, nuclear realists realized that any analysis of strategy and security should be embedded in a larger framework examining the terms of political modernity. Particularly in the context of nuclear weapons, projecting insecurity outwards as a threat to be managed could not, ultimately, provide security in any meaningful sense. Their critique of the prevailing concept of national and predominantly military security anticipated the development of a wider, post-national understanding of the concept of security in critical security studies.

The Holocaust in particular came to play an important role as a reference point, fable and symbol of a thoroughly disenchanted and technologized world. Despite Günther Anders' careful discussion of the differences between Auschwitz and Hiroshima – two central markers in his philosophy – it is clear that they were part of the same historical development. Where total warfare and the Holocaust had transformed the old adage that 'all men are mortal' into 'all men are exterminable', thermonuclear weapons came to symbolize the absurdity and finality of history, since now 'Mankind as a whole is exterminable' (Anders, 1956: 148). To Anders, the bomb became a symbol of *naked* nihilism in a century shot through with nihilism. Lewis Mumford and John H. Herz went even further in pointing to the similarities between nuclear stalemate and the concentration camp. Mumford (1961: 2) never tired of pointing out how strategic bombing had turned war into genocide and every country or city into potential concentration camps. In his reappraisal of his early work on *Technics and Civilization* (Mumford, 1934) 25 years on, this idea culminated in the suggestion that a proper description of the topic would now demand an analysis of 'The World as Extermination Camp' (Mumford, 1959a: 533). Similarly, Herz ([1962] 1976a: 124) held that 'the moral predicament of which the Nazi extermination camp was a symbol is now duplicated by the potentialities of thermonuclear warfare'. For nuclear realists, streamlined killings and push-button warfare were highly significant markers of the thermonuclear predicament and life at the limit.[7]

As they inserted their apprehension of the global destructiveness of nuclear weapons into a developing analysis of modernity at the height of the Cold War, it is perhaps no surprise that the

insights of Anders, Herz, Mumford and Russell constantly hovered between hope and desolation. On the one hand, a blind faith in the Enlightenment principles of science and rationality was unwarranted in the light of the horrors of the 20th century. It could even be downright dangerous, as Herz realized after witnessing at close hand in Geneva the breakdown of the reformed international order with the League of Nations at its centre – an order that he, as an ardent liberal, had politically supported (see e.g. Herz, 1939). Mumford underwent a similar conversion. Having visited Germany in the early 1930s at a time when the national socialist movement was growing rapidly and making its political presence felt, he had failed to note both the extent of the movement and the intensity of its anti-liberal ideals. When Mumford belatedly realized what was at stake, his atonement took the form of a fight against what he termed 'pragmatic liberalism' and its isolationist implications for US foreign policy. As he argued, such a liberalism was 'too noble to surrender, too sick to fight', plagued by 'a total incapacity to face the worst' and thereby risking the ultimate perversion: being 'too virtuous to live' (Mumford, 1940: 56, 57, 107).

On the other hand, this pessimistic outlook did not prevent nuclear realists from articulating alternative, progressive views of politics that placed individual freedom, diversity and development centre stage and that also foreshadowed a notion of common security, transgressing the (porous) borders of national and international politics. But, given the absolute materiality of nuclear weapons and a bipolar international order, this ultimately liberal (or radical) view required a healthy dose of 'realism without illusions' (Philp, 2012). This should begin not from an idea of how people ought to act ideally or rationally, but from an appreciation of the context within which politicians and policymakers have to make choices as well as a critical examination of their actual conduct.[8] Nuclear realists campaigned for a more humble calibration of liberal ideals and a more balanced approach to notions of progress. What was needed was a language and understanding of politics in the face of dark realities against which no rational theory could provide a bulwark. Such a language had to steer a course between a blind faith in science, rationality and progress, on the one hand, and a pessimistic retreat from emancipation and liberty, on the other. This realist form of liberalism-*cum*-radicalism has strong affinities with Foucault's (1986: 42–43) later injunction that:

> We must try to proceed with the analysis of ourselves as beings who are historically determined, to a certain extent, by the Enlightenment. Such an analysis implies a series of historical inquiries that are as precise as possible; and these inquiries will not be oriented retrospectively toward the 'essential kernel of rationality' that can be found in the Enlightenment and would have to be preserved in any event; they will be oriented toward the 'contemporary limits of the necessary,' that is, toward what is not or is no longer indispensable for the constitution of ourselves as autonomous subjects.

For nuclear realists, the 'contemporary limit of the necessary' was nothing less than the question of the survival of the species. In their view, a nuclear-armed, state-dominated configuration of international politics was bound to produce a politically suicidal and morally unacceptable great power nuclear war (or a great power conventional war that risked escalating into a nuclear war).

The obsolescence of international relations and the false promise of deterrence

The central, vexing question for nuclear realists was not dissimilar to that of most other observers of international politics in the 1950s: Can nuclear weapons be reconciled with the foundational institutions of international society? Unlike others, however, for nuclear realists the answer to this question was ultimately no. For them, the traditional conduct of international politics, whatever severe shortcomings it may have displayed in the pre-nuclear era, reached an absolute limit in the

mid-20th century. The horrifying nature of World War II – its increasingly total, unrestrained char-acter, the German extermination policy towards the Jews, and the atomic bombings of Hiroshima and Nagasaki – contributed decisively to this realization; but with the advent of thermonuclear weapons, time-honoured practices of the balance of power, diplomacy and war were irrevocably undermined. In his analysis of the balance of power, Herz had argued that the traditional European balance-of-power policy was a safeguard against imperial ambitions that, with Britain strategically placed as the holder of the balance, had achieved near-perfection in the 18th century. In contrast to a more mechanical system – where order was achieved at random – Herz (1951: 216) stressed that balancing was more a political art than an applied science. Two challenges to this (idealized) con-struction of the balance of power presented themselves in the postwar era according to nuclear realists. First, the power shifts of the international system made it doubtful whether a balance of power (policy) could function in a more rigid configuration with only two major players and no holder of the balance. After the arrival of the thermonuclear bomb, furthermore, combating 'Kremlin's false ideology' required an altogether different strategy of genuinely appealing to the people in the communist world. Emphasis should not be put on a fabricated, hollow fantasy of the American Dream – as was often the case – but on 'the actual pluralistic system which allows the greatest variety and play to whatever economic forces and institutions, private or public, will efficiently further the common good' (Mumford, 1954a: 8). Such calls went well beyond strategiz-ing about foreign policy; they were intended as mirrors for a society that was increasingly, yet thoughtlessly, falling under the spell of Cold War nuclear statehood.

Second, the classical balance of power, when it worked best, had depended on the existence of a system of diplomacy that allowed for frank exchanges of view and, in the event that diplomacy failed, war as a continuation of politics and diplomacy by other means. Again, however, injecting thermonuclear weapons into this already fragile and dangerous organization of international poli-tics exposed the limits of traditional political rationality and diplomacy. As Russell repeatedly stressed during the 1950s, it was precisely the nature of the new weapon that made it unsuitable for this kind of politics:

> Diplomats … are deprived of their traditional weapon. They are in fact reduced to a game of bluff and blackmail. If it is thought that the other side would rather exterminate the human race than yield, it is rational to give way to the lunacy of opponents. There is thus a premium on madness, and one-sided rationality entails defeat for the less insane. (Russell, 1957: 347)

War, or the threat of war, similarly lost its meaning in the modern Clausewitzian sense. Although the dictum that war is a continuation of policy by other means used to be true, 'war has ceased to be a method of attaining the ends of Statesmanship' (Russell, 1954a: 51), since 'in a war using the H-bomb, there can be no victor' (Russell, 1955a: 303). Of the nuclear realists treated here, Russell was the most outspoken in stressing the novelty of the situation that the thermonuclear revolution had brought about. The Bikini tests and his early grasp of the physics and scale of the H-bomb, as well as his attention to those few facts and judgements about the new weapon made available by politicians and military officials at the time, led him to stress 'the wholly new fact' (Russell, 1954a: 51) that the ends of war can no longer be achieved with the most advanced weapons. As he starkly put it, 'we can all live or all die, but it is no longer possible to think that only our enemies will die' (Russell, 1954b: 22). Writing at the end of the 1950s, Herz (1959: 21) entirely agreed with Russell's point: 'Unlimited war … can no longer bestow on any power waging it in the form of nuclear war that which used to be the fruit of "superiority" and thus of "victory": the attainment of war aims, whether security or any others'. This situation was brought about by guided, intercontinental mis-siles and the revolutionary force of fusion bombs that had achieved 'an uncanny absoluteness of

effect' (Herz, 1957: 488). Consequently, security meant insecurity, while victory was a mere word. In Herz's analysis, this state of affairs was particularly dangerous in a situation in which war was increasingly bureaucratized and where the security dilemma played itself out in a context of ideological conflict and mutual suspicion. Oppenheimer's metaphor of two scorpions in a bottle was highly appropriate (Herz, 1959: 13).

In republishing and developing ideas published as a reaction to the atomic bomb, Mumford also stressed this fundamental point. He warned that modern war 'pursued to its logical end' would mean 'not the defeat of the enemy but his total extermination: not the resolution of conflict but the liquidation of the opposition' (Mumford, 1954b: 170).[9] Anders (1956: 258) concurred and drove home the point with characteristic eloquence: because nuclear weapons overwhelm their targets, their almightiness is their defect ('*Ihre Allmacht ist ihr Defekt*'). The H-bomb flouts the conventional understanding of a means by entailing the destruction of the end. Or simply: the bomb is too big. In Anders' words, 'the end discovered its own end in the effect of the means', which signalled nothing less than the degeneration of the conceptual distinction between means and end. Nowhere was this more obvious than in the context of arms racing, where 'the production of means has become the end of our existence [*Dasein*]' (Anders, 1956: 251).

This appreciation of the limits to international politics also lay at the heart of nuclear realist critiques of deterrence and what they considered the dangerous illusion among government officials that the H-bomb was a usable, if not a winning, weapon rather than a shocking technique of extermination. By falsely treating the H-bomb as a weapon, strategists and other defenders of deterrence failed to appreciate the reorganization of basic truths that followed in the wake of technological 'progress'. The central element in the nuclear realist critique of deterrence was an appreciation of how the politics of deterrence coalesced with a particular rationalist approach to politics that dominated the rapidly changing knowledge economy of the emerging military-industrial complex. Although civilians managed to break the military monopoly on strategy in these years, they did so from positions of intellectual authority established by funds from *within* this ever-expanding complex, whether in think-tanks like RAND or in the several centres dealing in nuclear strategy that were established at major universities during this period (Kuklick, 2006). To nuclear realists, this reconfiguration of knowledge production failed to adequately face the challenge of the new weapons; indeed, it merely signalled how the dominant conception of science, its attendant rationality and method, had spurred (and been spurred by) a modern civilization incapable of confronting the moral and existential dimensions of military force in the nuclear age. They kept stressing that the focus on short-term order and stability amounted to strategic, moral and political failure, producing a false sense of security and a host of negative side-effects, as well as precluding sustainable long-term solutions.

The majority of politicians and strategists relied on an overtly thin or too rationalist concept of deterrence that in the nuclear realist conception of politics was equally dangerous and untenable. While both Herz and Russell conceded in the late 1950s that deterrence had paradoxically been successful, they also argued that it was based on assumptions that were too optimistic. When Herz made these points, he also offered a knowledgeable and in some respects sympathetic discussion of nuclear strategy. He began by noting that security through nuclear weapons meant complete insecurity and that the most potent weapon was shot through with paradoxes and ambivalences. In making these points, Herz clearly grasped that credibility was the crucial issue (Herz, 1959: 198, 202, 215). But then a host of problems remained, none of them negligible: lunatics, the application of rationality in a context of uncertainty, risks of misinterpretation, different kinds of 'trigger-happiness' in officials running so-called fool-proof systems and, not least, the endless second-guessing of intentions (Herz, 1959: 183–184). With respect to the latter, Herz (1959: 207n) sarcastically remarked that 'it may be doubted that even the theory of games as applied to

international relations can cope with this one'. Unfortunately, Western policy was founded on exactly such shaky foundations. A policy of retaliation that was not precise and determinate, but based on a vague proclamation of no-first use, might 'provoke' rather than prevent war and – especially coupled with a defence policy underemphasizing conventional military force – could mean 'an involuntary rush into the very conflict we want to avoid' (Herz, 1959: 194–195).[10]

Russell, whose dissection of the human condition during these years bears some resemblance to the critical theory of Theodor Adorno and Herbert Marcuse (Ryan, 1988: 135), was even more outspoken about the widespread belief that the H-bomb constituted a 'winning weapon'. To unmask the long-term instability of the concept of deterrence (or what John Foster Dulles called 'brink-manship'), he invoked an analogy with the 'game' of *chicken* that had recently featured in a Hollywood production. For Russell, the game – which was played by running two cars against each other, testing the resolve of both drivers before being decided by a crash or the first turn away from it – symbolized the inherent instability of deterrence. Russell was at pains to refute the argument that there was no alternative to continuing playing a suicidal game or surrendering to the Soviet adversary (Russell, 1959: 30–31). The *chicken* analogy was Russell's most insightful contribution to contemporary nuclear strategy and secured for him a supporting role in the development of strategic thought: the following year, RAND theorist Herman Kahn (1960) used Russell's analogy in his notorious treatise *On Thermonuclear War*.

The virtue of Russell's analogy was its perceptiveness in relation to the crucial issue of credibility. In Kahn's hands, however, *chicken* became an argument for blind, automated resolve along the lines of the infamous doomsday machine that later made it into Western folklore through its appearance in Stanley Kubrick's (1964) film Dr Strangelove. Although Russell engaged in the kind of simulation that characterized Kahn's strategizing, he did so in order to expose the absurdity and futility of considering the use of military force after the thermonuclear revolution. His purpose was completely contrary to that of Kahn, who thought it important to think the unthinkable and contemplate the possibility of nuclear war. Indeed, when it came to US policy, Russell (1961: 17) stated: 'I can find almost nothing that seems to me compatible with rationality' in Kahn's version of strategy and deterrence. Characteristically, Mumford (1970: 452) would later dismiss Kahn's book in two words that spoke volumes about this 'rationality' and its underlying knowledge economy: 'Pentagonal platitudes.' The facts that Kahn thought thermonuclear war in some instances rational and that he underestimated the effects of this phenomenon landed him in a paradox not unlike that presented by the weapons he strategized about. As Russell (1961: 17) argued, the notion that thermonuclear war could be fought led to 'a bleak and cheerless outlook, but it is the best that Mr. Kahn can offer us even by stretching optimism to the very limits of credibility'. In an environment populated by fallible, pugnacious and occasionally mad human beings, a concept based on how decisionmakers rationally ought to act was not just unrealistic, but also extremely dangerous.

Given the 'limited intellectual capacities of humans', always 'open to erratic promptings', the existence of the hydrogen bomb demanded drastic action (Mumford, 1954b: 157). Locked into their disastrous approach dictated by a supposed scientific rationality, the strategists fabricated a 'death trap' yet continued to look upon themselves as hard-headed realists: 'How far can human self-deception go?', asked Mumford ([1958] 2006: 15). One of the central obstacles to this diagnosis gaining wider recognition was the submission to 'the machine' that characterized modern society and the nuclear age in particular. Not only did this machine involve a massive perversion of the scientific method – 'careful of quantities, ignorant about qualities, knowing much about causes and probabilities but indifferent to purposes' (Mumford, 1954b: 189) – it also produced submissive minds, thereby turning society into 'a mechanically engineered coma' (Mumford, 1956: 174; see also Herz, [1962] 1976a: 143). This critique arguably reached its pinnacle in the early 1960s, when

Mumford (1962: 213–214) – in a passage that deserves to be quoted at length – harshly indicted nuclear strategists:

> As a nation we are now under the control of under-dimensioned minds with five-year perspectives, immune to humane concerns: indifferent alike to the rich historic past they would nullify or the endless potentialities of the future they would abort or sterilize. Such demoralized minds are capable in fantasy of wiping out sixty million of their fellow-country-men, and congratulating themselves on contriving shelters that might save, also largely in fantasy, the bodies of some fraction of those that would remain. These Genghis Khans of strategy have conditioned their countrymen to ignore the fact that this unseemly massacre may still be avoided by adroit changes in military and political policy which a more humane intelligence could bring about. But in a world like ours, empty of historic values or purposes, the crassly optimistic reassurances of scientific fortunetellers are treated as oracles, while the well-grounded warnings of its humane Einsteins and Schweitzers and Russells are disregarded.

In this critique from Mumford's ever-sharper pen, the hold that nuclear weapons had taken over American society was, if not a consequence of, then greatly facilitated by ideas of mass extermination developed and impressed on modern societies during World War II. And exactly for this reason, 'the unqualified commitment to nuclear technology' involving specialists advising the government presented an acute danger that had to be countered by the realization that any human life sacrificed in this futile cause would be morally unacceptable. The lesson was clear: 'the chief enemy we must come to grips with is ourselves' (Mumford, 1959b). In sum, seeking security with nuclear weapons was dangerous and preposterous in equal measure. Anticipating arguments within contemporary critical security studies that 'security should be seen as a negative' or 'a failure' (Buzan et al., 1998: 29), nuclear realists understood that real security could only be achieved by transcending national security.

Away from the brink: Globality and political imagination

Despite the stinging critique of deterrence as a flight from reality and despite the dim prospects for genuine change, nuclear realists refused to accept the status quo. Instead, they developed a radical ethico-political project focused on survival, liberty and emancipation under conditions of globality, understood as the material existence of the globe as a single physical and sociopolitical space. This was necessary, according to nuclear realists, because the dominant rationalist approach to security and deterrence was not only limited and highly dangerous, but also performative: it reproduced an outmoded worldview that prevented and obscured alternative yet ultimately more realistic perspectives on politics and security.

This quest for alternatives required first and foremost a cultivation of political imagination, which nuclear realists deemed crucial for overcoming the social and political stalemate of the Cold War.[11] Since the closed, scientific models of strategy left no room for political deliberation, political imagination was crucial for reclaiming nuclear politics for public debate: 'If the word "Democracy" has any sense at all, then it means that precisely the province *beyond* our professional competence should concern us' (Anders, 1962: 500, emphasis in original). Reflecting this spirit, it was nuclear weapons that brought Russell back to radical political activism. Even the most 'academic' nuclear realist, Herz, came to realize that 'the ideal of the uncommitted, ivory-tower researcher' had to be substituted by that of the '*homme engagé*, if not *homme révolté*' (Herz, 1976b: 258). Mumford perhaps put it best when he argued against the notion that politics is the art of the possible. In the wake of the thermonuclear revolution, politics acquired an altogether different character because its limits were irrevocably transgressed: 'If politics means anything today, it must become "the art of the *im*possible." The people who sacrifice every principle to expediency,

every long-range plan to immediate profit, are the people who live in a world of slippery fantasies and self-deceptions' (Mumford, 1954a: 7).

For nuclear realists, imagination thus served the decisive political objective of keeping the future open, of seeing options other than the all-consuming demands of a deadly nuclear stalemate. They wanted more alternatives brought into view, a strategy that required 'sufficient flexibility of mind' as well as 'intelligence, imagination and audacity' (Mumford, 1954a: 7, 9). Apart from pursuing the general argument that modern society should strive to cultivate the aesthetic, eccentric, emotional and imaginative faculties of human beings, they persistently urged their audiences to 'see' the reconfiguration of political space and the renewed significance of a common human destiny that the nuclear age involved. In envisioning realistic changes to the present situation without reverting to the moral complacency of the status quo or the mere slogans of idealism, political imagination carried a heavy burden in nuclear realism. On the other hand, nuclear realists tapped into (and shared) existing beliefs about the limits of the nation-state (see e.g. Mumford, 1940: 327; Russell, 1931: 219), and they clearly came to believe that, in an important, fundamental way, the world was irrevocably one. In this light, discussing the terms and organization of global politics was clearly urgent and real, even if it involved suggestions that were not immediately realizable. The prospect of thermonuclear war played a crucial role here by infusing their visions of post- and supranational politics with a distinct urgency.

Günther Anders clearly stated that the question of major political ideologies – one unjustly claiming to be 'free', another rightly portrayed as 'unfree' – could not (or could no longer) take priority. Anticipating the notion of a world risk society (Beck, 2003), Anders (1956: 7) stressed that radioactivity knew no borders, and that the 'one world' thesis of the 1940s therefore held true. Although approaching the matter from a different perspective, one much more attuned to the power-political struggle of rival and fervently ideological superpowers, Herz (1959: 314) agreed that 'the world today is "one" in that it can be grasped, comprehended, and surveyed as an entirety'. He even devoted a chapter in his most successful book (if not the rest of his scholarly career) to advancing the cause of universalism, which he defined as 'that comprehension of mankind as a group, or entity, which imposes itself on those aware of the absolute peril in which the atomic weapon has placed mankind as such' (Herz, 1959: 309). Mumford (1948: 8), who would later emerge as a central figure in the development of modern American environmentalism, argued already in 1948 that 'every nation or group, however isolated in appearance, is part of an infinitely complicated and involved ecological partnership of planetary dimensions'. Since the H-bomb only served to increase the risk of catastrophe to planetary dimensions, 'unconditional co-operation on a world scale is … the only alternative to the certain disintegration of civilization and the probable extermination of the race' (Mumford, 1954b: 33). For Russell (1954c: 61), the case was similarly clear: 'International government, whether pleasant or unpleasant, has become a condition of human survival. We must submit to it, or die. And I mean this in an exact, literal sense.'

Even though nuclear realists occasionally resembled frustrated (or even fanatical) prophets thankful for any kind of airtime, they were well aware that these global visions enjoyed grim prospects during the Cold War. Still, their political visions presented a powerful antidote to the perversion of politics, culture and self-government that was taking place under the auspices of ever-expanding nuclear states. Moreover, they realized that a world government would not come into being automatically, but had to be cultivated from below or crafted from the top. The top-down perspective, represented by Russell, began from the growth of organization – and its corresponding threat to individual freedom – entailed by industrial civilization. Ways had to be found in which freedom could be safeguarded without destroying the increase in organization, which Russell, in common with many contemporaries, regarded as a defining, if not an inevitable, element of modern civilization. From this perspective, Russell's longstanding and intensifying call

for world government appears rather curious, since, quite apart from charges of idealism, the idea of such a structure has always been met with the response that it offers the least safeguard against the curtailment of the very same civil liberties for which Russell campaigned so relentlessly. Could this circle be squared? Concerning the constitution of political order, Russell's view was strongly Hobbesian: authority was built on a monopoly of force. But, in contrast to Hobbes, he deployed an analogy between the 'domestic' and the 'international' to further the cause of world government. As he argued in 1954,

> the very same reasons which existed for the creation of national governments, exist now for the creation of an international government; and all the arguments against international government are the very same that could have been urged by turbulent barons in the fifteenth century against the power of centralized national governments. (Russell, 1954c: 61)

Even if one grants that the means of violence are central to the constitution of authority and obedience, Russell's expectations of the global political dynamics in such a world were not free from naivety or complacency, and after the thermonuclear revolution he occasionally came close to accepting the sacrifice of liberty for the sake of order.[12] Read more charitably, however, it is possible to argue that Russell thought of world government as an insurance policy against organized violence, and that it should be based on extended forms of democracy, subsidiarity and federalism (see e.g. Russell, [1952] 1975: 72). In this view, even if Russell's world government was built from above, it was ultimately designed to secure survival and enable the emancipation of individuals.

The second, bottom-up approach, represented by Herz, was markedly different although permeated by similar values. As a card-carrying political realist and professional pessimist, Herz based his discussions of global governance on two important provisos. First, he maintained that a holding operation to turn the world back from the brink was the absolute precondition for any attempt to discuss world order. This operation brought out every item in the (classical) realist toolbox in an attempt to install humility, limited objectives and peaceful co-existence in the superpower mindsets that, at the time, appeared rather unreceptive.[13] Second, Herz stressed that the cart should not be put in front of the horse. If the world was conceivable as (indeed was) 'one' in many respects, institutional mechanisms were not the immediate task at hand. Rather, for Herz, world governance was something to be built from below, through the development of what he called a 'universal "comprehensive" view'. It was not that Herz wavered in his belief in the reality or necessity of this *Gesamtschau* or 'planetary mind': 'The underlying facts of "globality" must, and do, have their impact on minds and attitudes' (Herz, 1959: 317, 319). His point was rather that any solution to political problems had to take account of underlying sociological and ideational facts. Approvingly citing Hegel to the effect that 'thought achieves more in the world than practice, for once the realm of imagination has been revolutionized, reality cannot resist' (Herz, 1957: 493), Herz (1959: 303) held discussion of the details of 'a more integrated world structure' to be 'theoretical and detached from present realities'.[14] The main task was to examine how universalism could be brought about. Always out to unmask appearances, Herz also warned that universalism could be exploited for non-universalist purposes. Still, in his estimation, true universalism was likely to emerge from 'a revolution in minds and attitudes rather than in a shape of a mass movement' (Herz, 1959: 349). He critically assessed functionalist ideas and discussed ways in which international law could, in limited ways, express and help internalize a growing universalism (Sylvest, 2010). Political authority *ought* to (but so far did not) reflect the sociological conditions of the modern world, including global threats to survival.

The distinction between the two modes of nuclear realist thinking about world government and world governance is not a rigid one. Russell would support any effort in the direction of enlarging loyalties beyond the nation-state, and Herz was not categorically opposed to discussing technicalities and blueprints.[15] Still, considering the intensity of their incessant critique and

the challenges that their ambitious calls for global reform entailed, at the institutional level their positive vision remained somewhat disappointing. Mumford was satisfied by interpreting rapid change in the *longue durée* and viewed world government – a term he was clearly comfortable with (Mumford, 1954b) – from a civilizational perspective:

> Civilization is the process whereby a part of mankind threw off the limitations of a rigid, static, tribal society, increased the range of human co-operation, communication, and communion, and created a common instrument for the continued development of personality and community… Civilization is the never-ending process of creating one world and one humanity. (Mumford, 1954b: 31–32)

Despite these shortcomings, nuclear realists agreed that globalist views – whether couched in the language of authority or of allegiance – depended for their realization on a necessary change of outlook. They refused to put their trust in templates for ever more ambitious schemes of total, scientific warfare in which any logistical and strategic problem, no matter how complex, could be solved by game theory or rigorous, quantitative methods. Instead, they understood that the necessity to cultivate a political imagination involved 'the increase of self-understanding, self-control, self-direction and self-transcendence' (Mumford, 1959c: 77). The difficulty and importance of that task continued to grow as nuclear statehood generated cultures of fear and suspicion that led to a paralysing consensus in politics and society (see e.g. Herz, 1954; Mumford, 1954c; Russell, 1954d Mumford, 1954c). Hence, the writings of nuclear realists during the thermonuclear revolution comprised both a biting critique of the risks to democracy, liberty and security produced by the power and rationality of a growing national security establishment, and a distinct, alternative vision of global politics. Tasked with unmasking the former and bringing the latter within grasp, cultivating the imagination was a vital aspect of nuclear realism.

Conclusion

Nuclear realist hopes for safeguarding civil liberties, ensuring a radical diversity of views and liberating the social imagination were initially no match for Cold War politics and culture. Even if it helped sow important 'seeds of the sixties' (Jamison and Eyerman, 1994), the direct political influence of nuclear realism appears limited. Some ideas made their way into movements for nuclear disarmament and may have played a role in spurring later ideas. Anders certainly thought so, as he accused Jonathan Schell, author of the important anti-nuclear tract *The Fate of the Earth and the Abolition* (Schell, [1982] 2000), of plagiarism (Dawsey, 2013: 9). True or not, the charge illustrates that, while later scholars or activists may have demonstrated striking similarities in analytical perspectives and rhetoric, few would write or march under their banner. For example, the contemporary movement for nuclear abolitionism shares some of the elements of nuclear realism in its emphasis on human fallibility and the dangers of apparently failsafe technological systems. Yet distinctive traits of nuclear realism, such as the breadth of political vision and a commitment to social critique, appear to have been lost.

In contemporary critical security studies scholarship, the work of Ken Booth (2007) draws explicitly on Herz's work and arguably comes closest to the nuclear realist perspective. Much critical work on nuclear weapons, however, would benefit from a stronger historical foundation. Notwithstanding the fact that the global visions put forward by nuclear realists were searching, underspecified and, at times, riddled with contradictions, revisiting nuclear realism at this time is likely to be rewarding for critical security studies. First, it is an invitation to examine more thoroughly the theoretical links and overlaps between realism and critical thinking about international and global politics. Second, as we have demonstrated in this article, it deepens the intellectual ancestry of the field and complicates our historical understanding of nuclear politics. Finally, as nuclear

weapons have (again) become the subject of both critical scholarship and progressive activism, the historical analysis of nuclear realism provides inspiration, guidance and caution to those – both within and beyond critical security studies – who are searching for new forms of global politics and security. The insight of nuclear realists that nuclear weapons should be considered in their totality remains a valuable reminder that bringing nuclear weapons under a 'cosmopolitan imperative' (Burke, 2009: 523) cannot be seen in isolation from the larger emancipatory task of 'reinventing humanity' (Booth, 2007: 256). In short, as voices in critical security studies call for 'an informed critical security studies project that explicitly tackles the question of nuclear weapons at a global level' (Hanson, 2007: 197), nuclear realism may provide a useful point of departure.

Indeed, nuclear realism constitutes an important but largely untapped juncture of critical thinking about security after the thermonuclear revolution that has strong affinities with the spirit, and in some instances also the substance, of contemporary arguments within critical security studies. Nuclear realism involved a critique of the rationalist assumptions that underpinned the theory and politics of Cold War strategy, a critique that in turn functioned as a battering ram for a deeper and more comprehensive analysis of social and political life under conditions of modernity. Departing from the view that balance-of-power politics was increasingly retrograde and dangerous, the political theory of nuclear realists was activist: it ultimately sought to reclaim nuclear politics for a wider public and supported global reform as the only realistic policy in a situation in which great power war could all too easily escalate into omnicide. In contrast to the strategists of the so-called golden age, their critique developed in tandem with a wider cultural diagnosis and led them to (re)formulate a vision of global security that extended far beyond, but never lost sight of, the analysis of military force. The thermonuclear revolution functioned, then, as a supreme moment of both modernity and globality that led them to examine the meanings of freedom, technology and human life anew. While our age is different and demands its own thinking, we continue to live in the nuclear age while being faced with an expanding range of global security problems. The prescience of nuclear realists in identifying the counterproductive effects of a state-based configuration of international politics and their clear grasp of the link between a global condition and individual life and security were further underlined by their increasing concern with a range of non-nuclear global political themes, including environmental degradation, resource depletion and population growth. In all these respects, nuclear realists were clearly forerunners of critical security studies. At a time when growing attention to nuclear politics risks being translated into matters of technique and (proliferation) management, we ignore the insights, ideals and failures of nuclear realism at our peril.

Acknowledgements

Funding

Notes

1. Remarks by President Barack Obama, Hradcany Square, Prague, 5 April 2009. Available at: http://www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered (accessed 21 August 2013).
2. Despite some insightful studies (Booth, 1999; Klein, 1994; Mutimer, 2000; Peoples, 2010), critical

security studies analyses of nuclear weapons have been sporadic. In a recent article on the future of criti-cal security studies, nuclear weapons are not even mentioned as a focal point (Browning and McDonald, 2013). The journal *Security Dialogue*, a prominent outlet for critical work on security, has only published four articles on nuclear issues since the end of the Cold War. A good deal of critical work on the political, cultural and social implications of nuclear weapons has taken place in neighbouring disciplines, par-ticularly history and anthropology (see e.g. Boyer, 1985; Cohn, 1987; Gusterson, 1996; Kuklick, 2006; Masco, 2006). None of these works, however, engage with the critical work carried out by the authors we consider in this article.

3. See Booth (2007: 90) and Buzan et al. (1998: 2).

4. With the notable exception of Michael C. Williams (2013), critical security studies scholars have yet to engage with this body of literature.

5. Concerns about rationality, the militarization of social life, social acceleration and technology can be detected in a range of thinkers during the period we are focusing on, and some of them developed ideas that could legitimately be captured by our concept of nuclear realism (e.g. Norman Cousins, Karl Jaspers and Herbert Marcuse). Moreover, there are similarities between nuclear realism and the type of postwar thinking that has been referred to as 'political studies enlightenment' (Katznelson, 2003) and 'interna-tional relations enlightenment' (Williams, 2013). However, both Katznelson and Williams pay scant attention to the issue that most radically exposed the limits of science and rationality: thermonuclear war. Besides their important family resemblances and cross-fertilization, our choice to focus on these four thinkers is motivated by the fact that they reached similar conclusions about the meaning of the nuclear revolution despite their different national, ideological and intellectual backgrounds.

6. Nuclear realists developed their ideas outside the policy establishment and the think-tank complex that proved influential in the rise of strategic studies. They had a complicated, if not strenuous, view of aca-demic life and its ongoing transformation, and they were (or became) involved in various forms of politi-cal activism. On the overlaps between radicalism and realism, see, for example, Ashley (1984), Osborn (2009) and Sylvest (2014).

7. The focus on the Holocaust, the camp and the reduction of political subjectivity to life that can be killed without punishment seems to offer an important, yet so far ignored, moment in the genealogy of excep-tionalism and bare life (Agamben, 2003). Although critical security studies scholars have intensively deployed these tropes to make sense of the 'war on terror', migration camps or border controls, they have yet to explore the supreme state of exception that nuclear weapons expressed on the global level.

8. This attitude speaks directly to the recent plea for scholarship in critical security studies to provide more contextual understandings of security dynamics (Browning and McDonald, 2013: 237).

9. Although nuclear realists had some sympathy with the argument that the superpower conflict needed a safety valve, the risk of escalation and the totalizing logic embedded in the mere existence of thermonuclear weapons left them unconvinced by arguments for limited nuclear war (see e.g. Herz, 1959: 200).

10. Having examined both 'unilateral' and 'mutual' deterrence, Herz (1959: 189) argued that only a strict concept of mutual deterrence (retaliation against *nuclear* attacks) stood any chance of success.

11. Nuclear realists often associated imagination with realism. Thus, Anders' 'philosophy of exaggeration' owed much to his reading of Kafka's realism, and Mumford similarly often found a resolute realism in the literary and political figures of the 19th century.

12. Russell (1955b: 12–13) acknowledged that the 'increase of inter-dependence makes it necessary to limit freedom in various ways which liberals in the past considered undesirable'. A similar logic appears to have informed Russell's argument during the late 1940s that the USA should use atomic bombs to threaten the Soviet Union into submission.

13. Today, however, such ideas have become increasingly acceptable among critical security studies scholars. See, for example, Burke (2009) and Hanson (2002).

14. In the same context, Herz remarked that existing plans for supranational government – for example, those described in Frederick L. Schuman's (1952) *Commonwealth of Man* – did not sufficiently take the new, revolutionary conditions of the nuclear age into account.

15. Indeed, Herz speculated already in 1959 about a 'global organization and of planning for the

implementation of global needs' – a rather technocratic formulation. Later he envisaged a sort of neo-medievalism in which new supranational agencies would constitute 'a new kind of permeability from above' that in turn could restore the nation-state (Herz, 1959: 232, 342).

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Rens van Munster is Senior Researcher at the Danish Institute for International Studies and Coordinator for the Peace, Risk and Violence section. His research focuses on the global politics of security, risk and catastrophe since the Cold War. He is co-author of *Politics of Catastrophe: Genealogies of the Unknown* (with Claudia Aradau; Routledge, 2011) and co-editor of *Documenting World Politics: A Critical Companion to IR and Non-Fiction Film* (with Casper Sylvest; Routledge, 2015). He is currently writing a book with Casper Sylvest, entitled *Nuclear Realism: Global Political Thought during the Thermonuclear Revolution* (Routledge, forthcoming in 2015).

Casper Sylvest is an Associate Professor at the Department of History, University of Southern Denmark. His research interests are interdisciplinary, combining the study of politics, history, law and technology. He is the author of *British Liberal Internationalism, 1880–1930: Making Progress?* (Manchester University Press, 2009), and the co-editor of *Classics of International Relations* (with H. Bliddal and P. Wilson; Routledge, 2013) and *Documenting World Politics: A Critical Companion to IR and Non-Fiction Film* (with Rens van Munster; Routledge, 2015). He is currently writing a book with Rens van Munster, entitled *Nuclear Realism: Global Political Thought during the Thermonuclear Revolution* (Routledge, forthcoming in 2015).