Justifying Ballistic Missile Defence: Technology, Security and Culture
by Columbia Peoples
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Why has missile defence been pursued by successive US administrations when the technologies involved are of dubious efficacy and significant financial costs? This question is the trigger for Columbia Peoples’ book Justifying Ballistic Missile Defence: Technology, Security and Culture; and the answer leads him to call for a critical approach to understanding the role that technology plays in achieving ‘security’ and the wider emancipatory goals of critical security thinking. Traditional approaches to technology do not allow alternative solutions to flourish, and this must be rectified.

After summarising the book’s contents, this review proposes the possibility that ballistic missile defence (BMD) challengers can use the same technological framings espoused by Peoples for the advocates of BMD. The BMD challengers have triumphed over the BMD advocates in 1972 with the signing of the ABM Treaty, which provided a non-technological amelioration to the problems posed by Soviet nuclear weapons. This illustrates the weakness of Peoples’ call for an ‘alternative’ mode of thinking on missile defence policy issues without first giving considerable analysis to the arguments and cultural inspirations of the BMD challengers. Furthermore, Peoples leaves little detail in the reader’s mind as to what form this ‘alternative’ thinking on missile defence could take and how it could inform policy. Peoples does not use his theoretical framework to construct a policy proposal or argument against the Obama’s administration ‘phased adaptive approach’ to developing and deploying BMD.

Book summary
Peoples illustrates the circular and reinforcing logics of the proponents of missile defence advocacy in the United States across the history of BMD advocacy. Using the Gramscian notion of ‘common-sense’, Peoples constructs an American ‘common-sense’ position over BMD policy options over the decades. This ‘common-sense’ is derived from an extensive analysis of American philosophical thinking, popular culture, and the political elites’ conceptions of technology. Although these thoughts on technology fall into two different camps on the nature of technology (the instrumental and the substantivist), they reinforce each other when used by the advocates of BMD, and it is this overlapping and reinforcement which creates an uncritical ‘common-sense’ over the ‘menace’ of nuclear proliferation and the utility and promises of BMD technology. It is made explicitly clear that neither the instrumental nor substantive approaches to technology are sufficient on their own to understand the relationship between culture and security.[1] Peoples’ ultimate purpose is to use this illustration of an American ‘common-sense’ on technology to highlight the need to constantly assess the relationship between technology and security. Ultimately, according to Peoples, an emancipatory security goal – predicated on a critique of this American ‘common-sense’ understanding of technology – provides the only means to achieve nuclear security for the United States, as using technology as the solution to political problems is not a solution at all.

The book is divided into four parts consisting of two chapters each. The first part establishes the theoretical framework which structures the rest of the book. It also provides the empirical data to support the theoretical framework by analysing American culture’s relationship with technology, which illustrates a manifestation of Gramscian ‘common-sense’. Peoples draws philosophical inspiration from Habermas and Heidegger to illuminate the two strands of thought in the Frankfurt School with regard to technology: that of optimistic instrumentalism (technology as a progressive tool for humans) and pessimistic substantivism (technology has its own logic and determines the actions of humans). However, Peoples critiques the Frankfurt School due to its mere “reproduction of domination and instrumental reason” which had “reached a [cognitive] catastrophic endpoint.”[2] Characterising the instrumental and substantivist paradigms as ‘false ultimates’, he uses the Gramscian notion of common-sense to unify the two apparently juxtaposed positions. The first part concludes that American culture is rife with both conceptions of technology. Gramscian ‘common-sense’ is also used by Peoples to relate philosophical thinking on technology to ‘everyday’ discourse on it. Using the Frankfurt School’s main opposing understandings of technology “in a Gramscian way”[3] allows Peoples to articulate a large mass of cultural data on the American relationship with technology, claiming that both instrumental and substantivist values exist in American culture.

Parts two, three and four are divided into the anti-ballistic missile (ABM) era in the 1950s and 1960s, the Strategic Defense Initiative (SDI) in the 1980s, and National Missile Defense (NMD) and the BMD System in the 1990s and 2000s, respectively. Each part is divided into two chapters, illustrating the instrumental and substantivist styles of argument in favour of BMD. Each part culminates in a discussion of how substantivist fears of the opponent (such as the inevitability of undesirable actors gaining or improving nuclear and missile capabilities) establish the groundwork for instrumental interpretations of technology to ‘solve’ the problems depicted by the substantivist fears. BMD is illustrated as a persistent and recurring technological solution to a perceived threat to the United States posed by an external actor. The functional repetition of these chapters emboldens the point that Peoples is making: technology is seen (at least in American culture) as the cause of, and solution to, its nuclear security problems.

The concluding thoughts of the book point towards how the ambivalence of technology in American culture performs a ‘discourse-closing mechanism’ to defend a controversial weapons system from sustained criticism.[4] The understandings of technology employed by the advocates of BMD are a typical case of Gramscian ‘common-sense’. This has two implications: this form of common-sense gives discursive strength for BMD advocacy, and these common-sense understandings of technology are used in a ‘strategic’ fashion by BMD advocates.[5] In other words, BMD advocates can call upon the pessimistic interpretations of technology to construct threats, and simultaneously use the promise of technology to provide a way out of the predicament posed by nuclear weapons in the hands of undesirables.

In order to ‘break’ this reinforcing discursive loop within BMD advocacy, Peoples suggests that critical security studies (CSS) needs to escape the substantivist and instrumental poles and think beyond them, as resignation to technology and utopian promises from technology tend to reinforce each other’s outlooks. The use of both types of understandings of technology, along with their American cultural resonances, “seeks to foreclose the possibility that
there might be other approaches to nuclear security or indeed the possibility that we might need to rethink the problem of nuclear security in new ways.”[6]

The defeat of the BMD advocates?

Therein lays a problem with Peoples’ thesis. Peoples did not show to what extent the advocates have been successful in foreclosing ‘alternative’ possibilities to dealing with US nuclear (in)security, as he did not make it a specific aim of the book. Whilst Peoples has crafted an excellent and detailed discursive analysis of the advocacy of American BMD, and a concise summary of American cultural interpretations of technology, the thesis could have benefited from an analysis of when the BMD-advocacy discourse may not have been successful, and had allowed non-technical approaches, or solutions, to come into the BMD debate and policy circles.

The prime example that comes to mind is the 1972 ABM Treaty. Peoples gives only a passing mention to the ABM Treaty’s signing, citing the failure of BMD advocacy in this instance to an “unprecedented local opposition and scientific scepticism, uncertainty in Congress, and an increasing consensus within the Johnson and then Nixon administrations that ABM was expendable in return for mutual limitation in offensive nuclear weapons were all factors that combined against the appeals of the ABM constituency.”[7]

If BMD proponents “ultimately failed to create a popular and political consensus behind missile defence” in the late 1960s and early 1970s, this has a clear ramification for Peoples’ concluding remarks on the closure of alternative solutions to nuclear security.[8] Is a non-technological ‘solution’, such as the ABM Treaty, an ‘alternative’ approach and an answer to what Peoples is clamouring for against the technological-solution discourse that saturates BMD advocacy? If so, a closer scrutiny of the apparent victory of the anti-BMD constituency in 1972 may yield some clues as to how the pro-BMD constituency was defeated, and how the reinforcing logics of the instrumental and substantivist interpretations of technology as used by the BMD proponents were thwarted. How, and why, did an uncertain Congress and the Johnson and Nixon administrations decide against BMD? How did their arguments form, and how was the final decision to sign the ABM Treaty decided in the face of the pro-BMD discourse which seeks to close any alternative (taken to mean non-technological) approach to nuclear security? This review cannot deal with all of these questions in great detail, but a brief survey of the history of the ABM Treaty’s signing should illustrate a point that Peoples’ thesis would have done well to contextualise the BMD advocacy discourse with the final decision to go ahead with the ABM Treaty.

Schroeer suggests that technological imperatives for solving policy problems ebb and flow. He cites the ABM as a ‘most impressive’ example of a controlled ‘strategic’ technology. The ABM system of the late 1960s suffered from the economic and political fallout of the Vietnam War and “for the first time a major weapons system was discussed publicly, exposing all its weaknesses”. For Schroeer, the ABM was the “truest example of the deliberate rejection of a potentially promising new technology.”[9] This is not to say that political/public analysis and discussion of weapons systems inevitably lead to their rejection. For example, BMD efforts under the Bush administration surged ahead despite relatively greater public discourse and government open-ness about BMD systems than in the 1960s, yet the Bush administration may have established a “hegemonic discourse” in policy-making and debate to push their policies through the American legislative system.[10]

Property relations

In signing the ABM Treaty, could it be that the United States wished to avoid a “chain reaction of competition between offensive and defensive arms”?[11] This is clearly a fear borne of substantivist views of technology, but such a view may not have led to an instrumentalist ‘solution’ from a substantivist technological predicament. The ABM Treaty was not signed in isolation from political events; it was part of a broad process of détente.[12] This complements a criticism made by Hagmann – ‘property-relations’ are collapsed in Peoples’ book.[13] Cultural views of technology alone are not enough to explain the politics of BMD (and perhaps any other military-security issue); who possesses the problematic technology or who poses the problem also matters. Correspondingly, it matters whether one views his or her own state’s weapons as the problem itself, as opposed to merely the other side’s possession of weapons. Even though the issue does arise in Peoples’ thesis, where Soviet technology is viewed with pessimism
and American technology with hope, he fails to take into account how American technology itself can be seen as problematic. Hagmann continues:

“... the book can only conclude with ‘contradictory’ American common-sense views on missile technology because property relations are collapsed into the framework. If they were not, then one would find that instrumental framings of that technology are consistently directed to the own country, and substantivist framing to other nations, and hence that American common-sense views on technology are differentiated rather than contradictory.”[14]

If the ABM Treaty was signed as part of détente, then property relations with the Soviet Union (or any other actor) could change in the perceptions of US policymakers, in addition to the potential of change in the Americans’ perceptions of their own technology, as Hagmann claims. To have a common-sense that is differentiated in its technological understandings may take away some of the conceptual ‘punch’ that Peoples can use from Gramsci’s notion of contradictory ‘common-sense’. Without this contradiction, Peoples may not easily claim to have illustrated an American ‘common-sense’.

Lending weight to Peoples’ convincing claims of the discursive strength of BMD advocates, Finney could be inferring the strength and persuasiveness of the cultural-technological rhetorical tools of the pro-BMD constituency by writing: “from 1967 to 1970, a group of senators dared to challenge a weapon proposed by the President – the commander in chief – and endorsed by the military.”[15] Finney also highlights property-relations in how the purpose of ABM, for McNamara, changed from defending against the Soviets to defending against the Chinese. Deterrence appeared to be sufficient for American national security vis-a-vis the Soviet Union in the late 1960s, but not so with China.[16] The substantivist fears of technology no longer applied to the Soviets, but remained in calculating conceivable Chinese military action. This highlights the need for property relations when discussing ‘technology’, and not to do so as one monolithic entity, as Peoples appears to have done.[17] Politics matters, as well, as cultural framings of technology as a solution to nuclear security – who holds the gun is a very important matter in deciding whether deterrence is feasible or not. Peoples does not account for the ownership of technology – property relations – when discussing instrumental hopes and substantivist fears of nuclear and BMD technologies.

American culture and BMD challengers

As a part of the anti-ABM effort, Wolfgang Panovsky proved to fit the American senators’ image of a scientist due to his “thick glasses and heavy accent” and was crucial in briefing senators on the technical limits and weaknesses of the ABM system.[18] Could this be an anti-ABM figure (unconsciously) pulling on the cultural affinities of American senators to add weight to his argument against ABM systems? To follow the example set by Peoples in citing Dr Strangelove or: How I Learned to Stop Worrying and Love the Bomb, [19] one need not look further than the character Dr Strangelove for an ‘authoritative’ scientist of weapons systems with a ‘heavy accent’ and glasses. This growth in opposition to funding for ABM construction was new; “normally, the Administration’s request […] would have sailed through Congress without much debate.”[20]

Finney illustrates Nixon’s perspective on the ABM system – Nixon appeared to have had doubts over its efficacy, cancelled the population-protection objective (citing the impossibility of a perfect defence) and reduced the system to the protection of two missile sites as the defence of the ‘deterrent’ need not be perfect. Also, this move may have undercut the grass-roots protest against the ABM system.[21] Paradoxically, Nixon may yet have had a use for the ABM system as a bargaining chip to push forward the Strategic Arms Limitations Talks (SALT); “the only way to control arms is to build arms”. [22]

Finney’s work informs us on Peoples’ thesis in the way it shows that American leaders and the political elite are not always prone to some American cultural predispositions as illustrated by Peoples. This appears in three forms: (a) the property-relation rejection of a pessimistic substantivist view of foreign technology and the inevitability of their use (in believing the Soviets could be deterred without defensive arms); (b) the rejection (by Nixon and McNamara) of instrumentalism in the efficacy of BMD systems, and therefore of solely technological solutions to nuclear insecurity; and (c) how instrumentalism can take on a substantivist character by building arms to create disincentives to build others (ABM as a bargaining chip to keep SALT and the Soviets at the table). These rejections of Peoples’ illustrated
Review - Justifying Ballistic Missile Defence
Written by Bleddyn E. Bowen

American cultural dispositions may be historically unique, but it shows a possible way of preventing further armament, as the political deliberations, among other factors cited by Peoples and Finney, led to the ABM Treaty. This political/legal settlement may be an example of an ‘alternative’ way of thinking that cuts against the prevailing ‘common-sense’ arguments for BMD portrayed in Peoples’ book.

The inverted use of the technological framings

The last form (c) points to a philosophical suggestion that instrumentalism could be used in such a way as to trigger a series of events in a substantivist manner to improve relations, or at least the military position of the United States. This is a possibility that is missing in Peoples’ book. He rightly and competently argues that pessimistic substantivist worldviews set the stage for instrumentalist deus ex machina solutions. However, an instrumentalist notion of technology could trigger a more optimistic substantivist chain of events. This was clearly a hope with the Nixon administration – the implementation of the ABM system as a bargaining chip sought to push the Soviets into the SALT process and avoid a spiralling arms race.

Yet the ABM system may have simply fallen foul to concerted attacks by the public and politicians in terms of cost. ABM may have been a ‘natural’ target for political/budgetary attacks at a time when the military-industrial complex was being targeted in the shadow of the Vietnam War. Gaddis echoes this general point, claiming that anti-military sentiment and budgetary pressures made any strategic arms build-up infeasible. Fortunately, the reason why the ABM system was a ‘natural’ target for budgetary attack is not elaborated by Kissinger. An understanding of why it may be deemed a ‘natural’ target may be informative to Peoples’ understanding of American culture with regard to BMD. This could be due to substantivist fears of further offensive-defensive arms racing. A definitive answer is beyond the scope of this analysis, but the point remains that Peoples’ thesis would have benefited strongly from an analysis of why the ABM Treaty was signed, and perhaps an illustration of how the strength of technological imperatives can ebb and flow over policy-making, as Schroeer believes.

Conclusion: undeterrable you

Using the substantivist and instrumentalist conceptions in an inverted direction could be a way to challenge the BMD advocates’ arguments. This could increase the salience of the case for thinking beyond these conceptions of technology made by Peoples, for ‘alternative’ solutions, if the challengers of BMD appear to be on the back foot. Even though the SALT and ABM bargaining processes may have required some technological instrumentalism (keeping Safeguard alive to retain the Soviets at the bargaining table) and may confer more weight to Peoples’ thesis, this would be too hasty an analysis. What comes to light in this short survey of the pro-ABM Treaty logics is that it allows us to see how different actors can be believed to be ‘reasoned’ with, from an American perspective. Détente between the USA and the USSR made ABM something that could be negotiated away into a box, whereas the new purpose given for a diluted ABM was against the ‘unreasonable’ Chinese. The 1980s saw the return of the ‘unreasonable Soviet’ caricature, epitomised by Reagan’s ‘evil empire’ rhetoric and the birth of SDI. Perhaps we are seeing the same with a caricature of an unreasonable Iran or North Korea, with contemporary BMD development and deployment.

If BMD efforts are linked to countering the nuclear missile arsenals of states which are believed to not be easily deterred – such as Karp’s type-II deterrence against ‘rogue’ states[25] – where does this leave Peoples’ thesis? BMD advocates may indeed use the technological framings espoused in his thesis; but so may the challengers of BMD when property relations are accounted for, and technology is not seen as a monolith. In his conclusion, Peoples asserts that the discipline of CSS must find a ‘new language of critique’ to address technological issues, as traditional understandings of technology contribute to constraints on human freedom.[26] However, this review has shown that a challenge to the advocates of BMD can be mounted using similar and inverted framings of technology. This contests Peoples’ claim that the ambivalence of technology closes discourse on BMD, and that opposing BMD does not challenge the discourse itself.[27] Rather, one can challenge the philosophical and cultural underpinnings of the technological conceptions used by the BMD advocates by using the technological framings in an inverted sense against ‘detrerrable’ actors. The United States has deterred previously believed to be ‘undeterrable’ actors in the past, such as the USSR and China.
Peoples’ book is not to be disregarded – it remains a compelling and accurate narrative of American BMD advocacy throughout the decades. However, calls for ‘alternative’ ways of thinking based on critical theory may be premature before a similar analysis of the BMD challengers is undertaken. Using Peoples’ frameworks (with the addition of property relations) for such a study would help make a further study of the cultural devices used by the BMD opponents a useful comparative tool to see whether the answers to challenging this American ‘common-sense’ already lie within contemporary discourse and cultural understandings of technology, and only need to be strengthened to compete with the discursive strength of the political elite and the military-industrial complex in portraying Iran and North Korea as undeterrable foes. Peoples claims to have provided a framework so that CSS may inform this policy debate with ‘alternative thinking’,[28] but the shape and content of that alternative thought is left to the reader and future trail-blazing researchers to ponder. It may seem that ‘alternative’ thought on BMD has already existed since the late 1960s.

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[3] Ibid., p. 45


[6] Ibid., p. 270

[7] Ibid., p. 120

[8] Ibid.


[16] Ibid., p. 33


[18] Finney, op cit., p. 35

[19] Peoples, op cit., p. 109

[20] Finney, op cit., p. 34

[21] Ibid., p. 36

[22] Ibid., pp. 39-41


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Review - Justifying Ballistic Missile Defence
Written by Bleddyn E. Bowen

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[26] Peoples, op cit., p. 271
[27] Helmig, op cit., p. 412
[28] Peoples, op cit., p. 271

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