Chapter 1
Cyber Warfare, Asymmetry, and Responsibility: Considerations for Defence Theorem

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ABSTRACT

Cyber attacks pose fresh challenges for high-level military strategy and the ethics of war. In this chapter I consider the interplay between cyber warfare, asymmetry and responsibility and the relevant implications for defence theorem. In the first section, I examine this form of technologically mediated fighting and suggest that when deployed by technologically superior states in certain contexts, it may not embody the sort of symmetry and equality that characterises just warfare. More specifically, it will be argued that cyber warfare can generate a morally problematic 'radical asymmetry' that sets justice and fairness in conflict or competition with the initial strategic aims of such wars in that they could provoke localised terrorism or guerrilla attacks. Having considered the impact of asymmetry in this domain, I then examine the impact on the attribution of moral responsibility and how this is challenged in technologically mediated conflict.

INTRODUCTION

Cyber attacks pose fresh challenges to the ethics and regulation of war. In this chapter I consider the complex moral interplay between cyber warfare, asymmetry and responsibility. In doing so, I consider the whether chess still serves as a simulacrum for political and military confrontation. While clearly a metaphor of the highest degree, it embodies a conception of a very particular type of war and, moreover, a conception that holds a great deal of significance for our moral assessment of cyber warfare. When we think of chess, we imagine equally configured forces ready to engage in a perfectly symmetrical contest. Each side has clear and distinguishable uniforms. The battle is regulated by robust rules that stipulate how the conflict is to be commenced, conducted and terminated. As David Rodin (2006, p. 153) argued in his exploration of the ethics of asymmetric conflict, this image reflects a moral assessment of war in two ways: first, it gives us the idea

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of war as a fair fight between two combatants; second, because the battle is isolated from all non-combatant elements, it accords with our sense of justice in war by limiting the risk of harm to those directly involved in the conflict. However, as he also points out, there are forms of war that do not embody the sort of symmetry and equality that characterises the contest that is chess (Rodin 2006, p. 153). As modern history confirms, war all too often diverges from the chessboard image of war and it is the argument of the first section of this chapter that when the degree of divergence reaches a critical point, we begin to experience serious difficulties in interpreting and applying just war theory. More specifically, it will be argued that cyber warfare deployed by technologically powerful states generates a morally problematic 'radical asymmetry' that sets justice and fairness in conflict or competition with the initial aims of such wars. In the second section of this chapter, I consider the implications of cyber warfare departing from the sort of transparency that is implicit in the game of chess and earlier forms of conflict. In particular, I suggest that the causal chains that we typically rely upon to attribute responsibility are obscured by the ones and zeros of digital computing and that as national security becomes increasingly computerised, we may need to shift toward a more functional and forward-looking sense of responsibility if we are to avoid a 'responsibility gap' in which accountability is limited.

A BRIEF BACKGROUND TO THE CYBER ASYMMETRY PROBLEM

'Asymmetry' and 'asymmetric warfare' are terms that are used and acknowledged widely throughout military, security and policy communities. US Major General Perry Smith puts it well in saying that '[asymmetry] is the term of the day' (Saffire 2004, p. 13). The problem is that references to asymmetry and associated terms have become so common and casual – to the point that they are virtually omnipresent in scholarly work, government reports and media briefs related to modern military affairs – that there is now a fair deal of confusion and distortion in thinking about asymmetric warfare and this can skew the argument concerning cyber warfare, if not resolved.

While familiar in common parlance, when we begin to apply the terms 'symmetry' and 'asymmetry' to war they take on an additional military meaning such that the definitions and concepts become somewhat less clear. Some argue that asymmetry as a modern military concept did not make its first significant appearance in print until the early to mid 1990's (Safire 2004, p. 13), but detailed references to the same concept can be found at least some twenty years earlier in Andrew Mack's (1975) article 'Why Big Nations Lose Small Wars: The Politics of Asymmetric Conflict' in *World Politics*. It was in this article that the term 'asymmetric conflict' was described in detail and through which the concept popularised. As the title implies, Mack was concerned with why large industrial powers failed to achieve victory in conflicts such as those in Aden, Algeria, Cyprus, Indochina, Indonesia, Morocco, Tunisia, Vietnam and others, despite conventional military and technological superiority. To be more precise, he wanted an explanation as to how the militarily powerful could be defeated in armed conflict by the militarily weak. How could the weak win wars? He hypothesised that there must be a range of what he called 'asymmetries' at play. In doing so, Mack acknowledged the work of others who had also written about the role of asymmetries, although in somewhat different terms and with different emphases. For instance, he highlighted that Steven Rosen, E.L. Katzenbach, Johan Galtung and Henry Kissinger have all written about asymmetry in terms of willingness to suffer costs, financial resources, technological resources, goals and strategy (Mack 1975, p. 178). Mack, however, thought that the important asymmetry in the majority of cases was that of public support for political action (Mack 1975, pp. 184-86).