Chapter 74
Super Soldiers:
The Ethical, Legal, and
Operational Implications

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ABSTRACT

This is the second chapter of two on military human enhancement. In the first chapter, the authors outlined past and present efforts aimed at enhancing the minds and bodies of our warfighters with the broader goal of creating the “super soldiers” of tomorrow, all before exploring a number of distinctions—natural vs. artificial, external vs. internal, enhancement vs. therapy, enhancement vs. disenhancement, and enhancement vs. engineering—that are critical to the definition of military human enhancement and understanding the problems it poses. The chapter then advanced a working definition of enhancement as efforts that aim to “improve performance, appearance, or capability besides what is necessary to achieve, sustain, or restore health.” It then discussed a number of variables that must be taken into consideration when applying this definition in a military context. In this second chapter, drawing on that definition and some of the controversies already mentioned, the authors set out the relevant ethical, legal, and operational challenges posed by military enhancement. They begin by considering some of the implications for international humanitarian law and then shift to US domestic law. Following that, the authors examine military human enhancement from a virtue ethics approach, and finally outline some potential consequences for military operations more generally.

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**INTRODUCTION**

With the background and working definition provided in the previous chapter (Chapter 7), we begin our discussion of the primary ethical, legal and operational issues associated with military human enhancement. At this point, it must be said that to the extent that ethics underwrites law and policy, we are often better placed to understand the former by looking at the latter as the real-world implementation of ethics. This is also beneficial in the sense that international and domestic law—including laws relevant to biomedical enhancement—may demand immediate attention, with potential humanitarian concerns or the possibility of requiring serious sanctions. We therefore adopt the approach of focusing first on legal problems that are generated or exacerbated by military human enhancement.

However, the discussion does not end there. We also sketch a range of other considerations, both explicitly philosophical in nature, as well as some affecting more operational concerns. While certain of these latter considerations are not as likely to lead to direct physical harm to subjects and may seem somewhat abstract, these matters remain of great importance to the moral foundations of military service and the relationship between citizens, states, and their military institutions. Also, even though all of these considerations are in some sense intertwined, we separate them here as best as we can for ease of presentation and comprehension.

**INTERNATIONAL LAW**

What are the provisions in international law that may bear upon military human enhancements? Should enhancement technologies, which typically do not directly interact with anyone other than the human subject, nevertheless be subjected to a weapons legal review? That is, is there a sense in which enhancements could be considered as “weapons” and therefore subject to legal instruments such as the Biological and Toxin Weapons Convention? How do norms related to human-subject research and medical ethics impact military enhancements?

These are some of the most important questions for military enhancements as they relate to international law (Lin, 2012a). Conceptually, we divide international law into two categories: the first is commonly known as the Law of Armed Conflict (LOAC) and the second is composed of international agreements related to biomedical research. Because these are well-known conventions, we will only list them here and add more detail later as needed.

Under international humanitarian law (IHL), the main instruments of interest here are:

- Hague Conventions (1899 and 1907).
- Biological and Toxin Weapons Convention (1972).

Under international biomedical laws—which we discuss more in the next section—the main instruments of interest here are:

- Declaration of Geneva (1948).
- Declaration of Helsinki (1964).

As it concerns new technologies, Article 36 of the Geneva Conventions, Additional Protocol I, specifies that: “in the study, development, acquisition or adoption of a new weapon, means or method of warfare, a High Contracting Party is under an obligation to determine whether its employment would, in some or all circumstances,
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