

The Effect of Cyber Enhancement on Soldiers' Moral Responsibility: Causes vs. Enablers

The implications of human enhancement technologies touch on many fields, not least legal and moral questions. In this talk, I would examine the impact of cyber enhancement on a person's moral responsibility for his or her actions and suggest that this impact should be evaluated using the distinction between 'causes' and 'enablers'. In his work on the counterfactual analysis of causation, philosopher Lawrence Lombard distinguishes between 'causes', which are *events* that make things happen (that is, bring about effects that did not exist before and are thus *changes*), and 'enablers', which are not events but 'conditions or states the obtaining of which merely makes it possible for one event to cause another'.

I seek to explore how this distinction applies to cyber enhancements of humans in a military context. Applying this distinction, enhancements that cause the agent, either deterministically or probabilistically, to perform a certain action, pose a threat to their moral responsibility. For example, an enhancement that causes a soldier to become unthinkingly obedient might undermine their moral responsibility for executing an immoral order from their commander. The existence and extent of the threat to moral responsibility depend heavily on the exact causal relation between the enhancement and the agent's actions, and on the particular theory of free will one accepts. However, I contend that enhancements that can be considered enablers rather than causes do not raise similar concerns. For example, a bionic eye, which merely provides the soldier with more information, seems to be a paradigmatic example of an enabler, because such an enhancement only makes it possible for the soldier to make an informed decision about how to act rather than *causing* them to perform a certain action.

The distinction between causes and enablers also seems to have a bearing on the responsibility of the *provider* of the enhancement. A person who provides an enhancement knowing that it will cause the soldier to commit a war crime may be responsible for that crime as a *principal* (or as a *joint principal*, if the soldier is also responsible). By contrast, a person who provides an enhancement knowing that it will merely *enable* the soldier to commit a war crime could only be morally responsible as a secondary participant, such as an aider or abettor (to borrow some categories from Criminal Law), and only in the case that the provider meets all the conditions of the relevant type of secondary participation.