Acceptable Military Research

When can Research Institutions Accept Funding from Defense Agencies?

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Writing Assignment Four, Military Research

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*Abstract* This article discusses whether it is ethical for scientific research institutions to accept money from defense agencies. The article begins by introducing the reader to the topic of military research. It then describes the main arguments about the morality of military research. This article then introduces a specific example of a research experiment which involved the study of the fragmentation of aluminum. The article then argues that scientists should be held morally accountable for their research. However, under certain circumstances, scientists are allowed to accept funding from a defense agency. If the research will benefit society, protect the lives of soldiers, and help build necessary defense weapons, then the research is acceptable. If the research will lead to inhumane weapons of mass destruction, then scientists should not accept funding from the defense agencies.

*Index Terms*—Military Research, Impact Fragmentation

# Introduction/Background

The military has access to all kinds of advanced technologies. Military researchers receive billions of dollars in funding to create new and innovative technology for the military. Examples include, advanced ballistics, new aviation technology, an iron dome defense system, better ways of communication, and medicines that stop excessive bleeding. Moreover, since the civil war, technology developed for the military has often benefited the civilian population. However, some applications of military research have led to devastating results from the horrors of trench warfare perpetrated by the release of powerful artillery and chemical weapons, to the Nazis’ use of new technology to build gas chambers for the purpose of killing innocent civilians. Given that these new technologies allowed for militaries to commit immoral actions, one must consider whether research institutions should accept funding from defense agencies. If so, how morally accountable should these researchers be held?

# Summary/Established View

According to Jesper Ryberg in his article, “Ethics and Military Research,” very few ethicists argue that scientists bear the full responsibility for the military’s immoral application of their research and thus should avoid taking research grants from defense agencies. [1] Most ethicists believe that military research does have its benefits. Thus, these ethicists focus on other arguments. [1] Ryberg describes the four popular arguments which state that scientists shouldn’t be held morally responsible when conducting research for the military. [1] The first argument is called the Nature of the Scientific Inquiry Argument. [1] This belief states that when conducting any research, scientists should feel free to pursue any scientific experiment because a scientific inquiry only furthers general knowledge without causing harm to others. However, this argument is flawed in that many scientists do often have a vague understanding of what will result from their research. [1] For example, during WWII, Dr. Fieser’s research on fire, was conducted for the purpose of attacking Japanese bunkers and soldiers. [1] The second argument states that if the research is legal, or if key decision makers in the government approve of the research, then it is morally acceptable. [1] The flaw in this argument is that it falsely assumes that governments don’t make amoral decisions. [1] Moreover, just because an action is legal, doesn’t mean it is moral. [1] The third argument states that because scientists don’t decide on how their research will be applied, they shouldn’t be held accountable for the harm done by their research results. [1] The issue with this claim is that without their research, the potential catastrophe wouldn’t have been possible. [1] The last argument states that if one research group didn’t conduct the research, then another group would have. [1] And thus the result would be the same. However, this argument fails to consider that the one committing the action is to be held morally accountable. [1]

Ryberg then adds his own argument. He states that military researchers should share the responsibility with everyone else involved in implementing this technology. [1] Thus, should a catastrophe from the result of military research occur, the scientists involved be partially responsible. [1] The author concludes his article by stating that there are many factors of morality that researchers must consider before undertaking a research project for the military. [1]

An example of a military research experiment is described in the article, “Impact Fragmentation and Ballistics of Pressed Aluminum Powder Projectiles.” [2] In this study, scientists tested the reactivity of Aluminum that was launched at high speeds. [2] They did so by examining the ballistic fragmentation of aluminum bullets. [2] Based on their experiment, these researchers concluded that due to aluminum being a reactive metal when launched at high speeds the size of its fragments upon impact will be smaller than those launched at lower speeds. [2]

# Essential Considerations

Ryberg is correct when he states that research institutions definitely share a moral responsibility when they partake in military research. [1] However, Ryberg fails to elaborate on the potential benefits of military research for society. Furthermore, there are several benefits for a research institution to accept funding from a defense agency. Therefore, military researchers can partake in research that will either benefit society, save money for the military, or create weapons used for defense. Scientists shouldn’t conduct research that can lead to horrific destruction. Moreover, scientists shouldn’t accept funding for research that can lead to creation of chemical weapons or other inhumane weapons of mass destruction.

Because researchers need to take morals into consideration when given a potential project from a defense agency, they should be fully aware of the overall purpose of their research and that the military will use it in one way or another. Furthermore, given the nature of the research that scientists are doing, a scientist working on military research should easily be able to discern the possible types of applications that will stem from their research. [1] For example, scientists should realize that the previously mentioned study done on the fragmentation of aluminum will probably be applied to bullets, [2] while a research study on electromagnetic waves might be applied to sonar technology. Thus, a scientist’s first responsibility is to be aware of where the research can potentially be applied even if it isn’t exactly clear.

Once scientists understand their moral responsibility, it is important that they consider the potential benefits of their study. Historically, research conducted for the department of defense has often led to new technologies that have greatly benefited society. For example air wave communication technology was first used in the military but later became available to the public with the advent of cell phones. In addition, there are studies that are acceptable for military use. The most acceptable type of research is one that can help protect and save the lives of U.S. soldiers in combat. This type of research includes studies on different types of medicine and protective combat gear. Other types of acceptable research include research that will lead to applications used for defensive purposes such as missile defense systems or research that can end up saving a lot of money for the military. The impact fragmentation experiment was striving to do just that. [2] Scientists in that experiment were trying to overcome the reactivity and the fragmentation of aluminum bullets. Thus they attempted to fire the bullets at high speeds. [2] Their experiment did prove to be successful and thus the military might start to use more aluminum when manufacturing bullets. That would save the military and U.S. taxpayers a lot of money.

Despite there being a lot of beneficial research, there are circumstances when researchers should absolutely refuse to accept funding from defense agencies. Research institutions that do work with chemicals, radiation and laser technology should be extremely wary of accepting funding from the military as their research could be applied in horrid ways. Scientists that do accept funding for these types of experiments should definitely be held responsible if their research results lead to a great amount of human suffering.

# Conclusion

Scientists definitely have a moral responsibility when conducting research for the military. Therefore researchers must take ethics into considerations when accepting money from defense agencies. However, there are instances when accepting research funding is acceptable such as experiments that can benefit society, save the taxpayer money, and work for defensive purposes. Regardless of whether a research institution decides to accept funding from a defense agency, it’s important that the research institution holds some responsibility for either the benefits or the consequences that will result from its research.

# References

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[2] Thout, S. C., J. Wilkinson, R. J. Lee, J. R. Carney, J. Hooper, J. M. Lightstone, J. R. Jouet, and J. G. Rogerson. "Impact Fragmentation and Ballistics of Pressed Aluminum Powder Projectiles." American Institute of Physics (n.d.): n. pag. Web. 30 Nov. 2015.