**1. Ethical judgments limit the methods available in the production of knowledge in both the arts and the natural sciences. Discuss.**

As human beings, we are continuously confronted by moral dilemmas that cause us to make decisions based upon what is right or wrong, and consequently, it has been asserted that these ethical judgments can limit the methods available to produce knowledge in both the *arts* and *natural sciences*. When examining this concept, it’s essential to consider the definitions of the terms ethics and morality. Consequently, morality refers to the study of what is right or wrong, while, ethics is “the study of how humans ought to live morally” (Ethics). Though there have been a lot of controversies regarding whether or not knowledge is created, for the purposes of this prescribed title, it will be assumed that knowledge is produced, though this is highly debatable. Considering ethics in these two distinct areas of knowledge, this essay will thus be discussing the knowledge issue: *To what extent do ethical judgments limit the methods available in the production of knowledge in both the arts and natural sciences?*

The arts and natural sciences are both areas of knowledge that allow knowledge to be classified, and thus, ethical judgments could influence the extent to which knowledge is produced in these two areas (Woolman 144). However, before examining this concept, an essential question that is raised is: How does the role of ethical judgments differ in both the arts and the natural sciences? In terms of the production of knowledge, the natural sciences focus on the creation of knowledge regarding the physical world, while the arts concentrate more on communicating the inner experiences of human beings (Woolman 151, 219). From this, it can be deduced that the natural sciences are more systematic and logical in nature, whereas the arts are to a large extent based upon personal experiences and emotions. Thus, of these two areas of knowledge, it’s often easier to reach an ethical judgment and consensus in the natural science because of its systematic nature that is often agreed upon universally, whereas in the arts, it’s more difficult because viewing arts is an individual experience, meaning that everyone will have different ethical and moral values towards it.

With revolutionary scientific research studies that are currently being conducted, a common assumption is that ethical judgments limit the methods available for scientists to examine aspects of the world we live in. A fundamental method for the production of knowledge in the natural sciences is experimentation, which allows scientists to gain knowledge by testing different theories and hypotheses. Furthermore, considering the fact that many governmental agencies such as the National Institutes of Health (NIH) and universities have adopted ethical codes and policies for funded research, ethical judgments can be seen to have constrained the experimental methods available for knowledge to be gained (National Institute). To draw on a personal example, my ninth grade science teacher once gave the class a set of ethical guidelines that had to be met prior to designing a biology lab, which consequently limited the possible ways available for me to conduct the experiments. Though my experience is by no means universal, it nevertheless shows that when scientists are obliged to follow these ethical codes, the different techniques available for them conduct experiments to attain knowledge are hampered, and consequently limited. In accordance with this, in 2001, President George Bush’s ethical judgments towards using human embryos in research, caused him to introduce a ban for federal funding for stem-cell research, which at the time restricted the experimental techniques available for scientists to gain knowledge in medical advancements, and consequently limited the progress in stem-cell research (Parker).

As a result of this, it can be argued that when there aren’t any ethical restrictions or judgments present in the natural sciences, the methods available for the production of knowledge are expanded. A historical event that supports this interpretation was the medical experimentation on human beings that was carried at the Dachau concentration camps by Nazi doctors during the Second World War. The experiments used human subjects in order to find a cure for hypothermia by forcing people to go into an iced water bath for hours, and then assessing different ways to warm the patients (Nazi Medical Experimentation). Although this experiment was perceived to be highly unethical by others because many died during the process, it nevertheless allowed for scientific discoveries regarding treatments for hypothermia to be made, thus showing how when ethical judgments by the scientists aren’t present, there are more methods available to create knowledge in the natural sciences (Nazi Medical Experimentation).

In contrast, ethical judgments in the natural sciences can also aid the production of knowledge in certain situations. An explicit example of this is the Haber Process, was taught during my chemistry class. This theory is primarily based on the chemical reaction between nitrogen gas and hydrogen gas to produce ammonia (A Brief Biography). In the late 19th century, many scientists have been experimenting to try and find new methods of producing synthetic fertilizers. Throughout a long period of time, many have failed in their experiments, and it wasn’t up until Fritz Haber used his emotions, reasoning and ethical judgments to assume a moral responsibility as a chemist that these synthetic fertilizers were first discovered (A Brief Biography). Due to this, the Haber process was created, which is still used today to produce fertilizers. As shown, Haber’s discoveries serve as a counter claim, which demonstrate how his ethical judgments expanded the methods available for him to gain knowledge, by giving him the incentive to conduct more experiments.

Unlike the natural sciences, ethical judgments in the arts can oftentimes be seen to increase the production of knowledge, thus raising the question: To what extent do ethical judgments “expand” the methods available for the production of knowledge? Although there are many different forms of art, for the purposes of this essay, I will be focusing on music, literature, and visual arts.

When considering the methods available for artists to produce knowledge, it’s evident that the “methods” are primarily based upon the artist’s creative impulses and emotion to create artworks, which then produce knowledge within an audience. Unlike ethical judgments in the natural sciences, which predominantly focus on how scientists conduct experiments, ethics in the arts are to a greater extent based upon individuals judging the final product of the artist. Although this is debatable, when considering this idea, we can examine the song “Changes,” by Tupac Shakur, which is based on the theme of ethics. The idea behind this is that Tupac’s sense of what is right or wrong allowed him to creatively express and challenge contemporary societal issues. Being an African-American himself, Tupac used his perception, emotion, and reasoning to develop an ethical standpoint towards the racism and discrimination at the time in order to produce knowledge for the audience by inspiring new forms of thinking, because it wasn’t common for African-Americans to challenge the established norms. Considering the difference in ethical judgments between the African-Americans, and those who suppressed them, this example also points out the idea regarding language as a way of knowing, because depending on the context in which the term “ethical judgment” is used, its connotations and meanings will vary. The implication of this is that ethical codes are relative to individuals, and thus, the extents to which they affect the methods available to produce knowledge depend on those making the judgments.

In addition to this, the play “A Doll’s House,” by Hendrik Ibsen also serves as a counterclaim that shows how the director’s sense of what is right or wrong aided the production of knowledge by revolutionizing the way in which individuals perceived society. Originally performed on December 21, 1879, which was a time whereby both men and women were fixed into specific gender roles, the play indirectly challenged some of these ideals by depicting the protagonist, Nora, as an independent, strong, and unconventional women (Ibsen). By questioning the ideals of fixed gender roles, the play allowed Ibsen to expand that knowledge into society by presenting people with novel forms of thinking that weren’t common at the time. Therefore, when examining this concept, we can notice that Ibsen’s ethical judgments had increased the methods available for him to creatively produce knowledge because it inspired him to write the play.

Despite having situations whereby ethical judgments in the arts have aided the production of knowledge, there are also circumstances whereby they have hindered it. Although it isn’t as common as in the natural sciences, this idea can be explored through the censorship of artworks in certain areas of the world, because this limits the techniques available for artists to create art, and consequently discourages the production of knowledge for the audience. For example, after living in the United Arab Emirates, I came to a realization that certain artworks aren’t allowed in the country due to cultural, religious, and political beliefs. Looking at the artwork by the Palestinian artist, Shadi Al Zaqzouq, whose painting had been banned from Dubai due to others considering it “culturally sensitive”, it’s evident that these judgments have limited the production of knowledge amongst the audience because they won’t be exposed to the artwork. (National University).

In conclusion, the role of ethics in the arts and natural sciences differ to a large extent. With regards to the examples and counterclaims that have been explored, it’s evident that ethical judgments can either limit or expand the methods available to gain knowledge. As explored in this paper, people’s senses of what is right or wrong in the natural sciences to a large extent limit the methods available for the production of knowledge because scientists will have to avoid what’s “unethical”, whereas in the arts, these judgments help produce knowledge, by inspiring and expanding the techniques available for artists to create artworks.

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