HSS317: Ethics/Assignment-2/08-March-2020/20171059/CSE

Ethical evaluation plays a crucial role in life when one has to choose between two actions and contemplate which one would be a morally 'better' action. In this hypothetical scenario, scientist A is attempting to experimentally confirm whether the chemical causes cancer in humans. A can't prove it with a significance level of 95% and hence, the hypothesis can't be confirmed. But if she brings it down to 90%, it can. A is stuck in this moral dilemma after listening to her colleagues speak both, for and against both the scenarios. Ideally, as a scientist, it would be best for A to publish her results as they are. Say that A was able to confirm the causal effect with a significance level of 92%. As of now, there are two possible conclusions:

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C1: The chemical causes cancer.
C2: The chemical does not cause cancer.

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We could add a third conclusion, thereby establishing a middle ground between the other two, as follows:

> **C3: The chemical caused cancer with an experimental probability of 92%, which is lower than the 95% threshold for determining a causal effect.**

As a scientist, A's duty would be to report her findings as they are as in C3, which would be the best possible action. The conclusion, whether it actually causes cancer or not, would be up to the public.

But for the sake of propelling the argument, let us assume that C3 is not possible, that is, A only has two options, C1 or C2. For deciding which action A should choose, let us attempt to analyse the goodness of both the actions. By Mill's Utilitarian principle which decides the action on the basis of its consequence, an action is good if it tends to promote overall happiness. Let us look at the worst outcomes possible. In case C1 turns out to be a false positive, there would be an unnecessary panic all around, people might lose their jobs and it would ruin their livelihoods. **There could be a massive economic unrest**. This is the worst that could happen.

In the other scenario, if C2 turns out to be a false negative, people's would freely consume the chemical and get cancer. **Human life would be at risk and many people would die of the deadly disease.** People would have to spend lots of money for treatment and operations. This is the worst that could happen in this case. Employing a modified version of Mill's Utilitarianism, **let us try to minimise the sadness, which would be analogous to maximising happiness**. In the first case, yes, people would panic and be stressed out and many would lose their jobs and money. **But they would still remain alive!** Their ability to breathe would remain intact unlike the second scenario, where people would

actually die of cancer, causing pain to their near and dear ones apart from themselves. The economic problems, which can be solved, would not be nearly as bad as a risk to life itself. **There is definitely lesser sadness in the first scenario and hence, greater happiness.**

However, this is all assuming that consequence is really the best way to judge an action. Immanuel Kant would certainly disagree, because as per his theory of deontology, the morality of an action ought to be based on whether the action itself is right or wrong and not on its consequences thereby fighting the entire concept of consequentialism. Deciding an action would be duty and obligation based. Applying Kantian philosophy to this scenario, it seems that scientist A would have to report her finding that 'it does not cause cancer' **because of her duty as a scientist to report her findings correctly and accurately.** She would have to abide by the rules of the 95% threshold and not report her findings (assuming only C1 or C2 are possible. C3 would certainly be the best possible to action to take).

I personally believe in Kantian philosophy as well, because the Mill's general happiness would not work in some cases. For instance, let us look at Copernicus, who discovered that it was the sun, and not the earth, which was at the center of the universe. Employing Mill's principle, Copernicus should not have published his conclusion as it led to a massive revolt from the people who felt that their religious and moral viewpoints were being attacked. The Church was totally against the heliocentric model and there was unhappiness all around. So should Copernicus have not reported his findings? Wasn't it his duty as a scientist to publish his facts correctly and accurately?

One could draw a parallel and say that scientist A should report that 'it does not cause cancer' - because that's her duty as a scientist to publish results accurately. She would have done her duty as a scientist by staying true to the observational evidence and reported her true findings. **But is that her only duty?** If we were to consider that as her only duty, then we would be avoiding ethical considerations altogether. **Then A is merely a scientist and not a human being!** As people, it is also our duty to warn others of any imminent threat or danger that might befall them. If there is a possibility of anything disastrous, it is one's moral duty and responsibility to inform the others so that they can take the necessary precautions to stay safe. **The duty to warn others of any danger to life certainly supersedes one's duty as a scientist to stay true to the facts and figures.**

We are first human beings, only then are we engineers or scientists. **The moral responsibility to warn others is first and foremost, only then comes our duty as per our profession.** Kantian philosophy dictates that an action must be taken based on one's duty and whether the action itself is right or wrong. Both the actions here would be

fulfilling some duty, but since the duty to warn is certainly more significant than the duty to be accurate, **scientist A must report that the chemical causes cancer**. Because Ethics matter while assessing evidence. If it didn't, then we'd just be selfish humans caring only about our professions and not the lives of other people.

After all, ethics is not just about what is befitting us. It is about what is befitting our fellow human beings as well.