Research Paper

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Elon Musk and Tesla claims that their electric vehicles have prevented 3,821,840.5 tons of carbon dioxide pollution from emitting into the air over the United States. Interestingly, the CO2 savings figures were calculated by “tailpipe emissions reductions from historical cumulative miles driven by the global Tesla vehicle fleet” (Tesla, n.d.). Is this calculation accurate and if not is it ethical to continue promoting carbon reduction at that magnitude due to Tesla’s vehicle? In the Q3 2018 Tesla sold approximately 83,500 vehicles, which is approximately 8 times more than they sold in Q3 2015, which was only 11,603 (Statista, 2018). Are the increase car sales attributed by Tesla’s green electric vehicle movement, which claims to be reducing the carbon footprint in the United States?

Published in the journal Science Direct an article titled “Carbon dioxide emissions of plug-in hybrid electric vehicles: A life-cycle analysis in eight Canadian cites” Adams, Arain, Ferguson, Koutrokis, and Requia state “The adoption of PHEVs (plug-in-hybrid electric vehicles) is associated with significant social, economic, environmental, and health benefits. However, most researchers in literature generally estimate emissions using national averages of emission data (Adams, Arain, Ferguson, Koutrokis, and Weeberb, 2017, p. 1390). Therefore, the claims by Musk and Tesla are at best innacurate, but mostly false. The fact is that the majority of energy produced within the United States is carbon dioxide emitting. Therefore, the majority of Tesla vehicles are being charged with dirty power.

The U.S Energy Information Administration estimate that about 4.03 trillion kWh of electricity were generated at utility-scale facilites in 2017 within the United States. More importantly, aproximatly 63% of the 4.03 trillion kWh of electricity were generated from fossil fuels (coal, natural gas, petroleum, and other gases), 20% was from nuclear energy, and only a whopping 17% was from a renewble or clean energy source (U.S. Energy Information Administration, 2017). Therefore, in total 83% of the electricity generated in the United States in the year 2017 was dirty energy. Does Elon Musk and Tesla know that they are not being transparent with their claims and if so, is this ethical, even if a percentage of the claims are true?

In September of 2015 the Environmental Protection Agency found that Volkswagen cars being sold in America that had a “defeat device,” aka software, in diesel engines that could detect when they were being tested, changing the performance accordingly to improve the results (Hotten, 2015). Massive marketing campaigns were conducted by Volkswagen, touting that their diesel engine would emit lower than average nitrogen oxide gasses. Volkswagen knowingly and intentionally falsified the performance test results for environmental emissions. Volkswagen stocks plummeted, their reputation collapsed, nearly bringing them to their knees.

What was the motive for Volkswagen or Tesla to be dishonest? In fact, why do people and or companies knowingly and intentionally lie, cheat or steal? Could it be the money, power, a greater good, or outside influences? Sandel explains numerous reasons and philosophies that cause people to behave, what some would consider, inappropriate or unethical.

According to Sandel inappropriate actions or behaviors of someone with a utilitarian philosophy is acceptable as long as their actions benefit the majority or a greater good. For example, in the case of Tesla, Elon Musk may know that his cars aren’t really preventing as much pollution as they claim. However, Elon may feel that overall, he is contributing to a healthier environment even if the claims are off a bit. Therefore, in Elon’s mind, he isn’t acting unethical, in fact he may feel elated and ecstatic about his claims of reducing the carbon footprint.

Conversely, Kantianism or absolute behavior is about always sticking to a moral code of conduct; whereas, if it is morally wrong, don’t do it, no matter what! Volkswagen should have followed this particular philosophy, because it would have saved them billions and more importantly their reputation. Volkswagen’s angle to falsify reports was done to gain a greater market share in the U.S. diesel car market. If they would have gotten away with fraudulent behavior, they may have ascertained the majority of the U.S. diesel car market; however, it cost them more money than they made.

Libertarianism, is another philosophy on how people act or react in life. A libertarian believes in minimal state and or government intervention, similarly to a laisses-faire political philosophy. Going back to the Volkswagen example, if it weren’t for government involvement Volkswagen may have circumvented the regulator vehicle emissions test. Therefore, Volkswagen will be forever tarnished by libertarianism principles.

Lastly, Sandel discusses a pursuit of happiness exercising the Aristotelianism Philosophy of moral virtue. In other words, Aristotle felt that if we just focused on being good people, the right actions will follow without effort (Sandel, JUSTICE , 2010). The behaviors of both Tesla and Volkswagen were in no way virtuous. Transparency may be an Aristotelian principle to follow for Volkswagen and Tesla. Whereas, if the company’s intentions where moral and virtuous by practicing transparency disclosing factual information then people will be more drawn their products because it builds character, creditability and trust.

Both Volkswagen and Tesla have conducted business unethically. When it comes to business and trust there is no room for unethical behavior. According to Investopedia business ethics is the study of proper business policies and practices regarding potentially controversial issues such as corporate governance, insider trading, bribery, discrimination, corporate social responsibility and fiduciary responsibilities (Investopedia, n.d.). There is a distinct difference business ethics and the philosophical ethics, whereas business ethics is prescriptive and philosophical ethics is mostly subjective. As an engineer, and as binary thinker I am more inclined to follow Kantianism and Aristotelianism principles, and as far as business ethics there is no room for ambiguity or subjectivity.

# References

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