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S/G = +2, S/O = +2

3) The exhaust system in your car develops a leak, causing it to produce a horrendously loud noise when you drive it. You take it in to the shop and the mechanic tells you your catalytic converter has been damaged and needs to be replaced. It'll cost a total of \$450 for the repair. You don't have this kind of money available and leave in despair. Soon after, you run into a friend who says he has an old piece of exhaust pipe and can simply remove your catalytic converter and replace it with the pipe - for free! He adds: "Kansas has no emissions testing, so even though this is illegal, you'll never get caught."

Provide a detail analysis of the ethics associated with accepting your friend's offer, using the six step process described in class. Be sure to include relevant facts associated with the environmental chemistry and the purpose of the catalytic converter! You may use any literature or online resources, but you may not discuss your answer with anyone. [15 Pts]

I grant permission for my answer (in anonymous form) to be used by the instructor as an example of student work: mark- YES (NO) Signed: _____

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When considering the above ethical dilemma, we must first consider the facts. They include that a catalytic converter's purpose is to convert NO and CO to NO₂ and CO₂ through the following reactions, respectively: $2NO \rightarrow N_2 + O_2$ and $2CO + O_2 \rightarrow 2CO_2$, according to Baird & Carr's "Environmental Chemistry." In addition, by driving without a catalytic converter, one releases CO & NO into the atmosphere. NO leads to smog chemistry and O₃ generation, a 2^o pollutant that is a respiratory irritant in the troposphere. CO is toxic because it decreases blood O₂ levels. Driving without a catalytic converter endangers the health of others and the driver. According to "A timeline of the Clean Air Act," available at www.environmentaldefense.gov, it is illegal to drive without a catalytic converter because they have been required by law since 1975. Finally, on a micro level, the vehicle owner does not have the funds to buy a new catalytic converter but needs to fix it. So the car stops making said horrendously loud noise.

Next, it is important to consider the following ethical issues. First, is it right to put the pipe on instead of the catalytic converter? That is, is it ethical to increase the release of CO & NO, so as thus endangering the health of others by emitting these harmful pollutants!

ly, to play devil's advocate, is it right to require vehicle owner to attach something to his or her personal property for the common good? **good! need to consider both sides!**

+2 There are several affected parties we must consider before we make a final decision. First, the person affected mostly thoroughly is the car driver, financially, Volume **oh, I see -** wise, and health-wise. Next, we must consider those in the vicinity of the car for their personal comfort (volume) and health. **yes, it must be fixed to cut out the noise!** Future generations may also be impacted by the long-term impacts of more NO and CO in the atmosphere. Finally, the EPA is affected indirectly in that their laws could be compromised because they are NOT enforced at a state level.

*** extension** The possible consequences of this decision include that if the pipe is installed, one could get caught and have to suffer legal consequences. Also, it is possible that the additional CO output could create **yes!** a fatal situation for someone near the car if the conditions are right. There are two laws we also consider: **the Clean Air Act** and noise ordinance laws. **yes - sometimes exhaust leaks into a car - could be very serious!**

+p **what about noise rights, justice issues - if health issues that could result from not using a catalytic converter, and based on the immediate environmental and health issues associated with releasing more CO and NO into the atmosphere, I believe it would be unethical not to replace the catalytic converter.**

+3 **od** **direct clean summary fairly** though it will cost said vehicle owner money, it will greatly benefit him and those around his vehicle. In addition, there are legal consequences with serious punishments involved. Finally, for the good of our atmospheric chemistry, he should install a catalytic converter!