

Judith Jarvis Thomson, *The Trolley Problem*
in *Rights, Restitution and Risk, Essays in Moral Theory*,
Chapter 7 (William Parent, ed. 1986)

Some years ago, Philippa Foot drew attention to an extraordinarily interesting problem. Suppose you are the driver of a trolley. The trolley rounds a bend, and there come into view ahead five track workmen, who have been repairing the track. The track goes through a bit of a valley at that point, and the sides are steep, so you must stop the trolley if you are to avoid running the five men down. You step on the brakes, but alas they don't work. Now you suddenly see a spur of track leading off to the right. You can turn the trolley onto it, and thus save the five men on the straight track ahead. Unfortunately, Mrs. Foot has arranged that there is one track workman on that spur of track. He can no more get off the track in time than the five can, so you will kill him if you turn the trolley onto him. Is it morally permissible for you to turn the trolley?

Now consider a second hypothetical case. This time you are to imagine yourself to be a surgeon, a truly great surgeon. Among other things you do, you transplant organs, and you are such a great surgeon that the organs you transplant always take. At the moment you have five patients who need organs. Two need one lung each, two need a kidney each, and the fifth needs a heart. If they do not get those organs today, they will all die; if you find organs for them today, you can transplant the organs and they will all live. But where to find the lungs, the kidneys, and the heart? The time is almost up when a report is brought to you that a young man who has just come into your clinic for his yearly check-up has exactly the right blood-type, and is in excellent health. Lo, you have a possible donor. All you need do is cut him up and distribute *his* parts among the five who need them. You ask, but he says, "Sorry. I deeply sympathize, but no." Would it be morally permissible for you to operate anyway?

Questions.

1. In the first problem described above ("The Trolley Problem"), do you think it is morally permissible to turn the trolley? Is it morally obligatory to do so? Explain your reasons. Also set out at least one counter-argument.
2. In the second problem described above ("The Transplant Problem"), do you think it is morally permissible for the surgeon to "cut up [the young man] and distribute his parts among the five who need them"? Is it morally obligatory to do so? Explain your reasons. Also set out at least one counter-argument.
3. Suppose an automobile manufacturer is writing the software for autonomous vehicles in various situations. Consider the following situation. The vehicle is driving the speed limit, which is 75 miles per hour. All of a sudden, the vehicle perceives that someone is in the road in front of the car. The only way to avoid hitting the pedestrian would be to swerve into the lane of oncoming traffic. In that lane, there are five cyclists, and they would be killed if the autonomous vehicle swerved. Is this situation more like the Trolley Problem or the Transplant Problem? Or is it significantly different from both? What should the automobile be programmed to do in this situation?

4. Does your answer to question #3 depend on why the pedestrian was walking on the street? For example, would it matter if the pedestrian was jaywalking or walking in the street only because construction on the sidewalk forced her to?

5. Suppose an automobile manufacturer is writing the software for autonomous vehicles in various situations. Consider the following situation. The vehicle is driving the speed limit, which is 75 miles per hour. All of a sudden, the vehicle perceives that there are 5 cyclists in the road in front of the car. The only way to avoid hitting the cyclists would be to swerve into the lane of oncoming traffic. In that lane, there is a pedestrian who would be killed if the autonomous vehicle swerved. The pedestrian is in the road because construction forced her off the sidewalk. Is this situation more like the Trolley Problem or the Transplant Problem? Or is it significantly different from both? What should the automobile be programmed to do in this situation?

6. Suppose an automobile manufacturer is writing the software for autonomous vehicles in various situations. Consider the following situation. The vehicle is driving the speed limit, which is 75 miles per hour, and there is only one person in the car. All of a sudden, the vehicle perceives that there are 5 cyclists in the road in front of the car. There are a number of cars in the lane of oncoming traffic, so swerving into that lane would likely kill many people as well. The car could, however, swerve off the road. Unfortunately, there's a cliff, so if the car swerves off the road, the occupant will be killed. What should the automobile be programmed to do in this situation?

7. How do you think consumers would want the car to be programmed in the situation described in Question 6? If you were advising an auto manufacturer, would you advise it to program the vehicle in the way you predict consumers would want? If not, why not? Should the law require automobiles to be programmed in a particular way in the situation described in Question 6?

8. Suppose an automobile manufacturer is writing the software for autonomous vehicles in various situations. Consider the following situation. The vehicle is driving the speed limit, which is 75 miles per hour. All of a sudden, it perceives that there is an elderly lady in front of the car. The only way to avoid hitting the elderly lady would be to swerve and hit a 20-year old college student. Both the elderly lady and the college student are walking in the road because construction has forced them off the sidewalk. What should the automobile be programmed to do in this situation?