

Name: _____ Class: _____

A Teen and A Trolley Reveal Society's Dark Side

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In 2015, a high school senior named Tiffany Sun conducted a social science experiment and presented her results at the Intel Science Talent Search in Washington, D.C. The results of her experiment shed light on an age-old question: are people naturally good or evil? As you read, take notes on Sun's social experiment and how the results support her claims.

- [1] WASHINGTON, D.C. — A runaway trolley is barreling¹ down a track. It's headed toward five helpless people who can't possibly get out of the way in time. But you've seen it coming. If you throw a single switch, you can put the trolley on a different track. Unfortunately, there's someone standing on that second track who will now get hit. What do you do? Throw the switch and doom one person? Or do nothing and watch five die?

Thankfully, this situation isn't real. It is a thought problem known as "the trolley problem." Tiffany Sun, 17, used it to explore biases² in people against certain types of appearance, of apparent income or of disability. Her results show some of our darkest behaviors. But knowing that those dark sides exist might help us fight to counter them, she says.



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A senior at Roslyn High School in Roslyn, N.Y., Tiffany presented her results at the Intel Science Talent Search run by Society for Science and the public. Sponsored by Intel, this competition brings 40 high school seniors here to Washington every year. These young researchers present their projects to the public and compete for huge cash awards.

A philosopher first described the trolley problem in 1967. Tiffany came across it in a class on ethics — codes of conduct for how people interact with each other. It immediately fascinated her. "There was genuinely no correct answer," she says.

- [5] Tiffany thought the trolley problem might be a good way to study biases — or the prejudices³ people have. Biases are often something that we try to hide. We may not even be fully aware that they color our interactions or decisions.

1. moving at a high speed
2. **Bias** (*noun*) the tendency to favor one group or thing over another
3. **Prejudice** (*noun*) an unfair feeling of dislike for a person or group

But a scenario like the trolley problem might bring such a bias to light. So Tiffany tried an experiment in social science — a field studying how people act toward each other. She surveyed almost 300 people. She asked each to decide what they would do in the trolley problem. Would they throw the switch and kill one person, or do nothing and allow five to die?

Tiffany varied the identity of the woman waiting on the track. Sometimes the woman was well off, wearing a suit and carrying a briefcase. Other times she wore a waitress uniform. Sometimes she was very attractive. Other times she was plain. And in one condition she no longer was standing, but instead sitting in a wheelchair.

If a woman looks somewhat wealthy — as represented by the business suit — only 24 percent of her participants would sacrifice her. But if she was dressed as a waitress, 59 percent of the people offered to sacrifice her to save the other five. If the woman was attractive, 44 percent of people would sacrifice her. That share climbed to 68 percent if she was plain. And while 54 percent of people would throw the switch to sacrifice a standing woman, the number jumped to 74 percent if she was described as sitting in a wheelchair.

Tiffany is not sure why there were such notable differences in choosing between people who are attractive or plain, rich or poor, disabled or not. But without a doubt, she says, it appears “that we as a society tend to view some lives as less valuable than others.”

- [10] The results don't make our society look very nice, she observes. Still, understanding these hidden biases can be very important. With this information, she explains, “we can target those biases and create a more equal society.”

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Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

1. PART A: Which of the following best describes the central idea of the article?
 - A. Humans are evil by nature and must actively do good in order to resist their evil impulses.
 - B. The trolley problem does not accurately reflect human nature because there is no right answer to the problem.
 - C. Biases affect how people value others, but awareness can help reduce unequal treatment.
 - D. Society places value on people based on how well they can make tough choices for the greater good.

2. PART B: Which of the following quotes best supports the answer to Part A?
 - A. "What do you do? Throw the switch and doom one person? Or do nothing and watch five die?" (Paragraph 1)
 - B. "Tiffany came across it in a class on ethics... It immediately fascinated her. 'There was genuinely no correct answer,' she says." (Paragraph 4)
 - C. "54 percent of people would throw the switch to sacrifice a standing woman, the number jumped to 74 percent if she was described as sitting in a wheelchair." (Paragraph 8)
 - D. "understanding these hidden biases can be very important. With this information, she explains, 'we can target those biases and create a more equal society.'" (Paragraph 10)

3. How does paragraph 1 contribute to the author's explanation of "the trolley problem"?
 - A. It is designed to spark a classroom discussion about what the trolley problem represents.
 - B. It describes a situation and asks questions similar to what can be found in the trolley problem.
 - C. It asks the reader to consider how they value others' lives and what biases affect this.
 - D. It shows that the trolley problem is just an exercise and doesn't determine how someone would actually react.

4. Which statement best describes the relationship between ethics and the trolley problem, as shown in the article?
- A. The trolley problem is an experiment that tests one's moral principles by posing a difficult decision.
 - B. The trolley problem is an experiment that teaches people how to accept scenarios no one can win.
 - C. The trolley problem forces people to confront their own biases both in daily life and regarding larger moral principles.
 - D. The trolley problem proves that ethics is not an unbiased study but one that changes from person to person.
5. Summarize Tiffany Sun's findings. How do these findings contribute to or support her claims?

Discussion Questions

Directions: Brainstorm your answers to the following questions in the space provided. Be prepared to share your original ideas in a class discussion.

1. In the final paragraph, Tiffany claims that understanding people's hidden biases can help us create a more equal society. How? Explain this idea in your own words.
2. Imagine that you are going to enter the Intel Science Talent Search, and you are required to present the results of an experiment. What kind of an experiment would you design, and what would it test?
3. What can “the trolley problem” teach us about human morality? Are people basically good, evil, or a little bit of both? Explain your answer.