

The Relativity of Wrong Isaac Asimov

March 23, 2021

1. First we will focus on the part of Asimov's essay that describes the historical development of our model of the earth's shape. According to Toulmin, "claim", "warrant", and "observations/data" are basic parts of an argument, and each serves a different function within the argument. Identify these parts of Asimov's argument about the development of our model of the earth. (And *only* the model of the earth!)

There are many references on the internet to Toulmin. Here's two:

https://owl.purdue.edu/owl/general_writing/academic_writing/historical_perspectives_on_argumentation/toulmin_argument.html
<https://morganparkcps.org/ourpages/auto/2013/1/14/57432202/toulmin-1221454519149065-8.pdf>

2. Are there any claims made by Asimov that in your opinion have "implicit warrants"?

3. Using the earth's shape as an historical example, what is Asimov saying about science and the way science operates?

4. Now we can move beyond the earth's shape to other areas of his essay. Does Asimov claim that scientific answers improve over time? If so, how does this happen? If not, why not? Using Toulmin's terms, what are the parts of Asimov's argument involved in this claim? As a group, try to come to a consensus on the parts of his argument.

5. What is the **major** thesis of this essay? That is, what is the most significant claim made by the author? Here are some possibilities:

There is no such thing as a right or wrong answer.

There is more than one correct answer.

Modern knowledge is wrong.

Right and wrong are relative.

Right and wrong are points of view.

Wrong theories are usually incomplete.

One theory can be relatively more correct than another.

Our 20th century understanding of the universe is largely correct.

6. What is Asimov's view of how science "advances"? What motivates these advances; that is, how do they happen?

7. Make a list of six of mankind's most significant technological achievements--which ones depend on a model of the earth's shape? Did the engineers who designed or planned these achievements base their design on a particular theory of the earth's shape -- and if so, which one?

8. In the *Feynman Lectures on Physics*, Richard Feynman says that "The test of all knowledge is experiment. Experiment is the sole judge of scientific 'truth.'"

http://www.feynmanlectures.caltech.edu/I_01.html

Is this statement consistent or inconsistent with Asimov's main thesis?

Reaction paper (Isaac Asimov)

Audience: Dr. Salter

Requirements:

3-5 pages (double spaced)

Explain Asimov's thesis and state whether you agree or disagree with it

Compare Asimov's ideas about how science advances to the development of the periodic table

Reflect on the essay's impact on you: Has it changed your view on science, and if so, in what way?

This assignment is similar to a social science or humanities paper.

Rubric:

- 1) Have you explained Asimov's thesis about scientific models?
 - a. Which of Asimov's examples best illustrates his viewpoint and how?
 - b. Are any of the examples he gives unconvincing? If so, why?
 - c. Do you agree with his thesis? Why or why not?
- 2) Have you compared Asimov's viewpoint with the history of the periodic table?
 - a. <http://www.rsc.org/periodic-table/history/about>
 - b. Does the development of the periodic table agree or disagree with Asimov's view of scientific development?
- 3) Have you described if/how Asimov's essay has in any way changed your view of science and scientific research?
- 4) References in ACS style