

## Critical Thinking Assignment

Global warming is an important scientific issue and an important political one as well. An international group of scientists and policy makers ([the IPCC](#)) won the 2007 Nobel Peace Prize for their work assessing the risks and environmental impacts of climate change. They concluded that human-induced climate change is real, is primarily caused by the burning of fossil fuels and forests, and will likely have deleterious effects on the environment. On the other hand, climate-change skeptics argue that observed changes in climate are part of a natural cycle and are not caused by human activities, that observed changes in the earth's climate are not dangerous, and that fear of climate change is a product of public hysteria. Both groups claim that their positions are supported by science. But, who is right?

The objective of this assignment is to read and critically evaluate two papers on climate change. I recommend you set aside one hour for reading and thinking critically about each paper.

### **Before reading either of the papers, answer the following questions:**

1. Are human activities causing global warming?
  - Definitely
  - Likely
  - Maybe
  - Don't know
2. What would be the impact on the environment of continued release of greenhouse gases?
  - Improve the environment - warmer is better
  - Little effect on the environment - the planet will likely adapt to most changes
  - Hurt the environment - global warming is likely to harm people and the planet
  - Don't know
3. What would be the impact on the US economy of legislation to curb carbon emissions from fossil fuels?
  - Improve the US economy
  - Little effect on the US economy
  - Hurt the US economy
  - Don't know

*As you read the papers, ask yourself the following questions:*

- Are the papers published in peer-reviewed journals?

- *Are the authors qualified to write about the subject matter?*
- *Are all results accounted for?*
- *Are the authors selective in the facts they present?*
- *Are alternative viewpoints considered?*
- *Do the viewpoints seem politically motivated?*

Before reading a paper, flip a coin. If heads, read the article by The Union of Concerned Scientists first. If tails, read the Wall Street Journal article by Robinson and Robinson first. After reading and critically evaluating the first paper for an hour (either the Hansen paper or the Robinson paper, depending upon the outcome of the coin toss), set aside an hour for reading and evaluating the second paper and then answer the rest of the questions.

## **Papers**

- [Robinson, A. B. and Z. W. Robinson. 1997. Science Has Spoken: Global Warming Is a Myth Wall Street Journal, December 4, 1997](#)
- [Union of Concerned Scientists. 2008. Global Warming Facts. On-line article \[http://www.ucsusa.org/assets/documents/global\\\_warming/humanfingerprints.pdf\]\(http://www.ucsusa.org/assets/documents/global\_warming/humanfingerprints.pdf\) \[PDF\]](#)

**After you have read both papers, answer the following questions.**

1. Which reading did you read first?
  - Robinson and Robinson Wall Street Journal Article
  - Union of Concerned Scientists article
2. Which reading seemed more politically motivated?
  - Robinson and Robinson Wall Street Journal Article
  - Union of Concerned Scientists article
  - Readings were equal with respect to political motivation
3. Which reading presented a less-biased view of the subject?
  - Robinson and Robinson Wall Street Journal Article
  - Union of Concerned Scientists article
  - Readings were equal with respect to political motivation
4. Which reading did the better job of supporting its facts?
  - Robinson and Robinson Wall Street Journal Article
  - Union of Concerned Scientists article

- Readings were equal with respect to fact support
5. Are increased CO<sub>2</sub> concentrations in the atmosphere due to human activities?
    - Yes
    - No
    - Not sure
  6. Are increased CO<sub>2</sub> concentrations in the atmosphere good or bad for the environment?
    - Good for the environment
    - Bad for the environment
    - Not sure
  7. Are human activities causing global warming?
    - Definitely
    - Likely
    - Maybe
    - Don't know
  8. What would be the impact on the US economy of legislation to curb carbon emissions from fossil fuels?
    - Improve the US economy
    - Little effect on the US economy
    - Hurt the US economy
    - Don't know