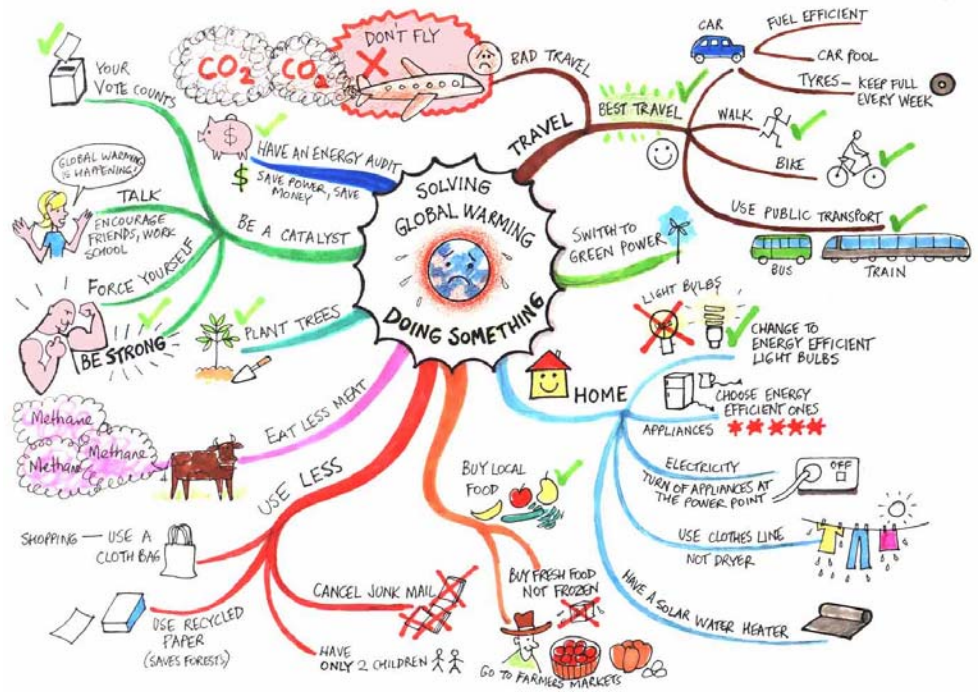

Study Guide for Introduction to
The Weather Makers by Tim Flannery
“The Slow Awakening”

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Key Terms and Concepts

- skepticism and science* – science does not “prove” anything and therefore grants only provisional certainty. All theories remain open for question and refinement. The language of science and the levels of certainty do not match the language of the media. Scientists always hedge their conclusions, no matter what. Media who report on science seek greater levels of certainty. They will never offer absolute certainty because that is not the nature of science.



- uncertainty* – a term used in subtly different ways in a number of fields, including philosophy, statistics, economics, finance, insurance, psychology, engineering and science. It applies to predictions of future events, to physical measurements already made, or to the unknown. Some media researchers like Chris Mooney have argued that energy industries are funding public policy groups whose goal is to heighten a sense of uncertainty about climate change: http://www.motherjones.com/news/featurex/2005/05/exxon_chart.html
- Precautionary Principle* – a principle associated with environmental policy that states that measured preventative action should be taken to address a problem when there is a reasonable belief that the situation could get worse.
- 20th century environmental crises* – loss of rainforests; extinctions and loss of biodiversity; rising salt, degradation of waterways. You name the others
- Multidisciplinary* – a combination of many disciplines, not necessarily working in an integrated or coordinated manner. Modern technical science is multidisciplinary. True interdisciplinary research is difficult, though some indigenous leaders claim that native ways of knowing about the environment are more integrative.
- Individual action* – collective action is more powerful than a collection of acts; but Flannery advocates strongly for the power of individual action

Thesis

In his first chapter, Flannery claims that we now know the causes and consequences of global warming with enough certainty to warrant immediate action. Moreover, he claims that individuals have the power to make the changes necessary without having to change their lifestyles significantly.

“But we cannot wait for the issue to be solved for us. The most important thing to realize is that we can all make a difference and help combat climate change at almost no cost to our lifestyle. And in this, climate change is very different from other environmental issues, such as biodiversity loss and the ozone hole.”

~Tim Flannery on his own transformation from skeptical interest to deep anxiety to action (6)

Support for thesis

Flannery supports his thesis with the story of his own conversion from skepticism to anxiety to action. He empathizes with the skeptic and understands the complexity of the problem. His first chapter reaches out to a skeptical audience and attempts to bring them along the path of his own conversion with a chain of reasons.

1. *Hiking Observation* – Two decades ago, he noticed that the forest was expanding and colonizing the grassland but did not connect that to melting glaciers. He thereby understands why others may not notice the changes.
2. *Relative Harm* – Other 20th century environmental concerns seemed more dire: loss of rainforests; extinctions and loss of biodiversity; rising salt, degradation of waterways. He understands why others might be distracted.
3. *False Alarms* – The Y2K bug had people in a frenzy and turned out not to be a problem. He understands why people remain skeptical about dire warnings.
4. *Skepticism and Action* – He embraces the inherent skepticism of the scientific enterprise, a method of questioning and disproving, and then argues that such skepticism can impede necessary action. Tobacco and asbestos are his examples of false debates and industry funded scientists who kept the debate going long after experiments revealed the harm. He therefore begins to question the drawbacks of too much skepticism when science turns from a disinterested methodology to a privately funded investigation that represents specific financial interests. Winners and losers, he claims, will come out of this crisis.
5. *Reasons for Inaction* – the issues are complex and multidisciplinary; and the average person usually waits for such problems to be solved by technical experts.
6. *Precautionary Principle* – Flannery concludes his introduction with passion, with the claim that we have an adequate level of certainty and the technological ability to make changes. All we lack now is the will, and the will of the people, individual people, is what he calls upon.

Possible Essay Exam Questions (emphasizing persuasive strategies)

1. Discuss at least two instances of uncertainty mentioned in two different parts of the book, and explain how Flannery balances the presence of uncertainty with the call to action.
2. Explain how Flannery argues that the science of prediction and our technological know-how warrant immediate action.

Bibliography

APA

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