

Date of discussion: 1/22/2016

DIRECTIONS: Use this form to help you prepare for your reading discussion. You must turn in a completed and corrected version of this form to your instructor on the day of your reading discussion.

I. SUMMARY OF ARTICLE

A. Introduction

1. Article title, source, and information about author.

Could Just Two People Repopulate Earth?

BBC, Zaria Govertt

Freelance science journalist. Science, Earth, Future (London)

2. Explanation of topic and main idea.

Writer tries to find the answer of this question which is title. She wants to know whether it is possible or not.

She tries to let readers to think about ourselves and our populations

3. Importance or interest of topic.

So far, we do not have the answer. But she considers that everything is possible.

B. REVIEW OF ARTICLE (This number may vary, depending on the article.)

1. Key point: There are the risks of incest in short run.

- genetic disease, increase possibility(10,11,12)
- reduce population(14,15)

2. Key point: Incest can also cause long run risks.

- Immune system (16)
- Generating new species (17)

3. Key point: Our ancestors developed from only 1000 people, and they divided themselves to smaller groups after starting migrating out of Africa; that's why all human have inherent flaw today.

- We should choose a wife/husband who has different type of gene because of tough immunity for children.

4. Key point: How much variety will we need?

- We need 50 breeding individuals to avoid inbreeding depression (in just one generation), 500 to adapt (to evolve) (18)
- Modelling about migration: 160 people can survive for only 200 years by Nasa (20)

5. Key point: Conclusion is that it's possible for two people to survive in theory. (20-23)

- Let's assume that there were only a man and a woman in the world. Human could be back to 7 billion if each woman had eight children.

II. DISCUSSION OF TOPIC

A. Information questions (based on information in the article; number will vary)

1. (part 1) Who are the alien and "two"? :

- a. *black rat and tree lobsters (1,2)*

2. (part 2) What are risks of incest? :

- a. *handicapped, increased possibility of genetic disease.*

3. (part 2) What is the concrete example of short-run risk :

- a. *Pingelap, European royalty (Charles II), kakapo, sperm quality*

4. (part 4) According to the author, how can human population would be back to 7 billions if apocalypse came and there were only a man and a woman? How long would it take? :

- a. *If each woman had 8 children, it could be possible in just 556 years (23)*

5. (part 3) From 20 paragraph, we can assume that today all human have inherent flaws. Inherent flaws means low genetic diversity. Actually when our ancestor were only 1000 people, they didn't have such a problem. Why, or how do we have it today? :

a. *For a million years nearly, there were only around 1000 people, and they didn't suffer from diversity. As they migrated out of Africa, between 50,000 years and 100,000 years ago, then they confronted with low gene diversity because they divided a large, 1000 people, group to several groups. Then the population of each groups were smaller than 1000. In 18, Stephens says we can evolve without incest if there are 500 breeding people. That's why our ancestor didn't have problem before leaving Africa, and today we've been left with low genetic diversity. (18, 20)*

B. "Thought" questions (asking for comments and/or opinions from the participants about the topic)

1. Without recessive risks, what do you think about incest in general?
2. You were the one of only two human in this world, another one had different sex. You have three choose A. give up, enjoy your life, die, no more human in this world. B. try all the possible ways to survive and increase the population. C. other
3. Do you think it's possible or not about Moore's model (21). Actually can only 160 people survive for 200 years?
 - No because we have to concern about other problems such as stress and human relationship. (e.g.)
4. Can you come up with other similar inbreeding community such as European royalty? Was the example of European royalty familiar with your country's royalty system or not? (11~13)
 - Royalty in ancient Egypt such as Pharaohs (e.g.)
5. Do you think this story is boring?

- III. IMPORTANT VOCABULARY. These are 5-10 key words or phrases from the article that are both useful and important for understanding. Include the part of speech (noun, verb, etc.) and the ¶ number.

Write these on the board (or give your classmates a sheet of paper) before beginning your discussion.

3 parthenogenesis (n)

reproduction from a female animal or plant without a male one
(e.g.) Female can get babies without male.

7 incest (n)

sexual relations between people who have too close blood-relationship

12 victim (n)

a person harmed, injured, or killed
(e.g.) The victim of the accident means people who were died or injured by the accident.

18 rule of thumb (n)

a broadly accurate guide or principle, based on experience or practice rather than theory.
(e.g.) measuring length by two fingers

18 IUCN Red List (n)

the International Union for Conservation of Nature and Natural Resources
the list for endangered animal
(e.g.) Panda

20 anatomical (adj)

anatomy : the bodily structure of an organism
(e.g.) Doctors who cut your body and try to see your bones or muscles.

20 archaeological (adj)

archaeology : the study of human history and prehistory through digging sites and the analysis of artifacts and other physical remains.
(e.g.) People who try to find dinosaurs' bones.

20 rough patch (idiom)

difficult situation

20 living proof of (idiom)

an example that prove it to be true

