# Phil. 450: Gettier Problems

**Assigned Readings:** Gettier [1963] and Clark [1963]

## 1 Reading Comprehension

1. State a condition that is necessary but insufficient for being president of the United States. State a condition that is sufficient for being a U.S. president but not necessary.

2. A *conditional* is a statement of the form "If $P$, then $Q$." Suppose the conditional "If $P$, then $Q$" is true. Fill in the following blanks.

   A. $P$ is a [blank] condition for $Q$.

   B. $Q$ is a [blank] condition for $P$.

3. State the thesis of Gettier's paper. Hint: It contains at least one of the following two words: "necessary" and "sufficient".

4. In one sentence, explain why the Ford example (Case II) is support for Gettier's thesis.

5. At the outset of the paper, Gettier states two assumptions. State the assumptions in your own words, and then give your own examples to motivate the plausibility of the assumptions.

6. Explain how Gettier's two assumptions are used in the Ford example. To do so, write an English sentence (without variables!) that the letter $P$ in Gettier's first assumption could represent when applied in the Ford example. What English sentence could the letters $P$ and $Q$ in the second assumption represent in the Ford example?

7. Explain, in your own words, what Clark means by "fully grounded."

8. Briefly explain why Smith's belief in the Ford example is not fully grounded.

9. What is the primary thesis of Clark's paper? Hint: His primary thesis contains the phrase "fully grounded" and at least one of the following two words: "necessary" and "sufficient."

## 2 Be creative!

The following questions are not straightforwardly answered in the assigned articles; several questions are open-ended in the sense that I do not expect you to give a specific answer. Answering the questions, therefore, requires creativity. Either you must interpret the text creatively or generate new ideas of your own.

1. In my experience as instructor, many students informally summarize Gettier's thesis in several different ways. Here are two: (1) "*Lucky guesses* don't count as knowledge", or (2) "if your belief ends up being true purely by *coincidence*, then you might not know what you believe." There's nothing wrong with those informal summaries of Gettier's thesis, but the purpose of this question is to force you to think about how to make those ideas precise. Many scientific discoveries seem "lucky" in some sense. The chemist August Kekule, for instance, purportedly discovered the hexagonal, ring-like structure of benzene after dreaming of a snake eating its tail. Alexander Fleming's discovery of penicillin also seemed very "lucky": upon returning to his lab after vacation, he noticed that a bacterium that he had been studying had spread over most of the Petri dishes except in one spot where a mold (penicillin) was growing. When scientists make lucky discoveries in these ways – discoveries made, in a sense, by coincidence – do they lack knowledge (e.g., that Fleming did not in fact know that penicillin kills bacteria)? If so, why? If not, why not? Compare and contrast types of "luck" and "coincidences" in the Kekule and Fleming examples with the that in Gettier-like examples.

2. In my experience as instructor, many students also summarize Gettier's paper in the following way: "If you believe something true but for the *wrong reasons*, then you might not know what you believe." Again, many important scientists seemed to have made scientific discoveries for the "wrong reasons." For example, the astronomer/mathematician/philosopher Johannes Kepler was one of the first scientists to propose (correctly) that the planets in our solar system travel in (roughly) *elliptical* orbits around the sun. Yet Kepler believed that there were only six planets in the solar system because (i) there are only five Platonic solids, which are geometric figures like tetrahedrons and cubes, and (ii) God determined the size and shape of planetary orbits by placing the planets on the five nested Platonic solids that were centered on the sun. Kepler, we might think, believed that the planets formed elliptical orbits *at*

*least in part* for the wrong reasons. Does believing for the "wrong reasons" always undermine knowledge? If so, why? If not, why note?

3. In a famous article (among philosophers!), Linda Zagzebski argues that Gettier problems are "inescapable." What she means is that every theory of knowledge satisfying particular conditions will be susceptible to Gettier-like counterexamples. Try to construct a Gettier-like counterexample to Clark's thesis. In other words, try to construct an example in which a person has a true, justified belief in some proposition $P$ that is fully-grounded and yet the person fails to know $P$.

4. In the final paragraph of his paper, Clark claims that the following question is "odd": "If I know that $p$, do I know that I know $p$?" What might he mean by "odd" and what does it matter that the question is "odd"?

## References

Michael Clark. Knowledge and Grounds: A Comment on Mr. Gettier's Paper. In Michael Huemer, editor, *Epistemology: Contemporary Readings*, pages 447–449. Routledge, London; New York, first edition, 1963.

Edmund Gettier. Is Justified True Belief Knowledge? In Ernest Sosa, Jaegwon Kim, and Matthew McGrath, editors, *Epistemology: An Anthology*, pages 192–194. Blackwell Publishing, second edition, 1963.