

# Knowledge and its Analysis

*What is it to have knowledge?*

- **Propositional knowledge:** knowledge concerning the truth of propositions; *knowing that* such-and-such is the case.
  - Examples of propositional knowledge claims:
    - I know that  $2 + 2 = 4$ .
    - I know that smoking cigarettes is bad for my health.
    - John knows that D.P. is the place to be for Halloween.
    - Jennifer knows that her bike was stolen outside of Freebird's on Saturday.

**If S knows that P, then S believes that P.**

And since knowledge entails truth,

**If S knows that P, then P is true.**

So,

**If S knows that P, then S believes that P and P is true.**

Question: Is having knowledge *just* having a true belief?

- Justification is necessary for knowledge:  
**If S knows that P, then S is justified in believing that P.**
  
- **So, if S knows that P, then S has a justified true belief that P.**

# The JTB Analysis of Knowledge

S knows that P **iff**

(1) S *believes* that P.

(2) P is *true*.

(3) S is *justified* in believing that P.

Knowledge is justified true belief.

- The JTB analysis of knowledge has the logical form of a *biconditional* (i.e., any statement of the form **P if and only if Q**).

The *only* way for a conditional (i.e., any statement of the form **if P, then Q**) to be false is if the *antecedent* (**P**) is true but the *consequent* (**Q**) is false.

Why? Because every conditional *just* “says” that its antecedent is *sufficient* for its consequent, and that its consequent is *necessary* for its antecedent.

- So, a **counterexample** to a conditional statement (If P, then Q) will be of the form **P but Not-Q**.
- A **biconditional** is two conjoined conditionals; such that, for any statement of the form **P if and only if Q** to be true, it must be true that both conditionals (i) and (ii) are true:
  - (i) **If P, then Q**
  - (ii) **If Q, then P**

So, a **counterexample** to any biconditional statement (**P iff Q**) will be of *either* these two forms:

- (i) **P but Not-Q**, or
- (ii) **Q but Not-P**.

# A closer look at the JTB analysis

- Since the JTB analysis is a biconditional, for it to be true both of its two conditionals (i) and (ii) must be true:
  - (i) If S knows that P, then S believes that P, and P is true, and S is justified in believing that P.
  - (ii) If S believes that P, and P is true, and S is justified in believing that P, then S knows that P.

# Gettier's Aim

- Gettier intends to present a counterexample to the JTB analysis which shows that having a justified true belief is **not sufficient** for having knowledge.
  - So, Gettier intends to show that the conditional (ii) is false:
    - (ii) If S believes that P, and P is true, and S is justified in believing that P, then S knows that P.

# Gettier's Two Assumptions

- **1. People can have justified false beliefs:**
  - S can be justified in believing that P, even though P is false.
- **2. Justification via Deductive Inference:**
  - If S is justified in believing that P, and P logically entails Q, and S infers Q from P and believes that Q on the basis of this inference, then S is justified in believing that Q.

# An instance of justification via deductive inference

- Let  $P$  be the proposition that Tim is wearing a hat and is the instructor for Phil. 1.
- Let  $Q$  be the proposition that the instructor for Phil. 1.
- Let  $S$  be Luke.

# Case I

- Smith and Jones have applied for the same job, and suppose Smith is justified in believing the following proposition:

**(P)** Jones is the man who will get the job, and Jones has ten coins in his pocket.

- Proposition **(P)** entails proposition **(Q)**:

**(Q)** The man who will get the job has ten coins in his pocket.

Suppose that Smith infers **(Q)** from **(P)** and believes that **(Q)** on the basis of this inference.

So, by assumption 2, Smith is justified in believing that **(Q)**.

- Now suppose that, unknown to him, Smith himself, *and not Jones*, is the man who will get the job. And, also unknown to him, Smith has ten coins in his pocket.

Thus, **(P)** is false, but **(Q)** is true.

And since Smith believes that **(Q)** and is justified in believing that **(Q)**,

- Smith has a justified true belief that **(Q)**.
- But, intuitively, Smith does not know that **(Q)**:  
-**(Q)** is true in virtue of facts entirely unknown to Smith.

# Case II

- Suppose Smith has strong evidence for proposition **(S)**:

**(S)** Jones owns a Ford.

Imagine that Smith starts to think of his other friend, Brown, who Smith hasn't spoken to in years. Smith does not have a clue where Brown currently is.

- Suppose Smith is bored at work one day and selects three place-names at random and with them constructs three disjunctive propositions, all of which are logically entailed by **(S)**:

**(T)** Either Jones owns a Ford, or Brown is in Boston;

**(U)** Either Jones owns a Ford, or Brown is in Barcelona;

**(V)** Either Jones owns a Ford, or Brown is in Brest-Litovsk.

- Suppose that Smith does infer **(T)**, **(U)**, and **(V)** from **(S)** and comes to believe each of them on the basis of these inferences.

So, by assumption 2, Smith is justified in believing that each of them is true.

Now suppose that, unknown to Smith, Jones does *not* own a Ford. (Perhaps Jones was only renting, leasing, or borrowing it.)

- And suppose that, by the “sheerest coincidence, and entirely unknown to Smith,” Brown *is* in Barcelona.

Thus, **(U)** is true.

And since Smith believes that **(U)** and is justified in believing that **(U)**,

- Smith has a justified true belief that **(U)**.
- But, intuitively, Smith does not know that **(U)**.

