1 The Gettier Problem

1.1 Conceptual Analysis: What is Knowledge?

Exercise: Define "Bachelor", "Clothes".

Conceptual analysis is the attempt to understand what a concept is by dividing it into smaller concepts that are ***individually necessary and jointly sufficient*** for the concept in question.

1.2 The Traditional Definition of Knowledge

In "Is Justified True Belief Knowledge?", Gettier summarises a common understanding of knowledge as "Justified True Belief".

K = J + T + B

S knows that P if and only if (B) S believes that P; (T) P is true; (J) S is justified in believing that P.

> You don't know that this lecture takes place in TC104.
> You don't know that this lecture takes places in TC103, if you actually believe that it takes place in TC104.
> You don't know that this lecture takes place in TC103, if you based your belief on guessing.

Propositional Knowledge

The kind of knowledge we are interested in is "propositional knowledge".

In English, the verb "know" is shared by three distinct concepts.

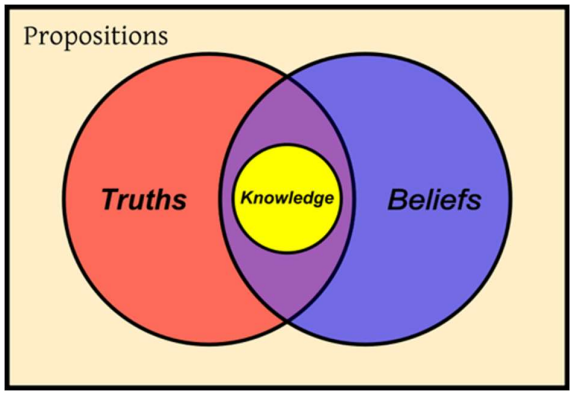
> I know how to ride a bike. (procedural knowledge, or "know-how")
> I know the girl sitting next to me. (acquaintance knowledge)
> I know that Gettier said knowledge is not the same as JTB. (propositional knowledge, or "know-that")

Declarative sentences purport to represent what is the case.

> The sentence "Snow is white" purports to represent the fact that snow is white.
> The sentence "Qin has stolen two bars of chocolates from 7-11" purports to represent the fact that Qin has stolen two bars of chocolates from 7-11.

A proposition has as its content the fact represented by such a sentence.

Knowing that the proposition is true is to know that the represented fact obtains.



1.3 Counter-Examples to K=JTB

Gettier then gives two counterexamples to show that JTB are not sufficient for knowledge. They each demonstrates how a case of JTB could be non-K.

His conclusion: $K \neq J + T + B$.

Case One

Smith believes:	Reality:
Jones will get the job.	Smith will get the job.
Jones has $10.	Smith has $10. (But he doesn't know.)
So, the person who will get the job has $10.	So, the person who will get the job has $10.

Case Two

Smith believes:	Reality:
Jones owns a Ford.	Jones does not own a Ford. He rented one.
So, Jones owns a Ford or Brown is in Boston.	Brown happens to be in HK. So, Jones owns a Ford or Brown is HK.
So, Jones owns a Ford or Brown is in Barcelona	
So, Jones owns a Ford or Brown is in HK.	

Or^1 or Or^2

There are two meanings represented by the same English word "or", the first excludes both occurring (as in "You go for exchange next semester, or you stay at CUHKSZ." which assumes you cannot do both), the second does not (as in "You should take GFH or GFN this semester the latest." which permits you to do both). We will only talk about the second "or".

Here are the technical meanings of the two "or"s, defined in truth-tables.

p	q	p or^1 q	p or^2 q
T	T	F	T
T	F	T	T
F	T	T	T
F	F	F	F

For the second "or", which we focus on, whenever at least one of the two items are true, the "or" sentence is true.

1.4 Take Home Question

In the face of Gettier's counterexamples, how can we modify the definition of knowledge, so that it is no longer subject to such counterexamples.

1.5 Attempts to Solve the Gettier Problem

Further Gettier cases:

https://www.youtube.com/watch?v=Xm41d4C2w5g
https://www.youtube.com/watch?v=g5E7eQ9d1qE

Lehrer's Nogot and Havit case ("One of my employees has a Ford".)

"No False Belief" Solution

This is the proposal to add to JTB a further condition, that our justification for the belief does not depend on any false belief.

K = J + T + B + No false belief used for J

But this solution is open to further counterexamples.

Audi's life-size picture case
Goldman's fake barn county case
Chisholm's sheep-dog in the field case
Russell's stopped clock case
Lottery ticket case

Some people argue that "no false belief" is not even necessary for knowledge. In other words, even if I have reasoned from a false belief, I may nevertheless have knowledge.

Swain's marriage case

"No Defeater" Solution

Harman: S knows that p only if there is no evidence such that were one to come into contact with that evidence, one would no longer be justified in believing p.

Fake news case

A defeater of a justification J for belief B is a piece of evidence d, such that (1) J justifies B, but (2) J and d does not justify B.

K = J + T + B + There is no defeater

This proposal solves Gettier's cases, Nogot and Havit case, fake barn case, sheep-dog case, stopped clock case, hologram case

But this solution is challenged by further counterexamples.

Crazy mother's (imagined) twin sons

Causal Theory

Goldman replaces the justification condition with the requirement that the belief be caused by its truth.

K = T + B + T caused B

This proposal solves Gettier's cases, the Nogot and Havit case, etc.

But it is vulnerable to Goldman's own fake barn case, among others.

> Hit in the head causing one to believe that one is hit in the head, among other crazy things
> Hologram case
> 10-year-old newspaper: Earthquake hits Japan.

Goldman's solution: T must appropriately cause B.

But Goldman's condition does not seem necessary for knowledge, either.

> I will die. (In this case, maybe both the fact and my belief about the fact are caused by the same thing, say, the biological composition of humans. The biological composition of humans causes other people to die, and thereby my belief that I will die; it also causes me to eventually die.)
> 2+2=4
> If P is a sufficient condition for Q, then Q is a necessary condition for P.
> It is wrong to torture babies for fun.

Reliabilism

Later Goldman: A belief is justified if and only if it is produced by a reliable process. Reliability means the tendency to produce truth beliefs.

K = T + B + B results from a reliable process

However, BonJour argues that reliability does not necessarily confer justification.

> Norman the Clairvoyant

Feldman: Reliabilism suffers the Generality Problem.

> A reliable process of identifying the species of an animal may not be reliable in distinguishing between sub-variations of that species of animal.
> A reliable process of comparing good students may not be reliable at comparing super good students.