

# **The logical inferences in Edmund Gettier's counterexamples to the Standard Analysis of Knowledge and human action**

36<sup>th</sup> International Wittgenstein Symposium  
on „Mind, Language and Action“,  
Kirchberg/Wechsel, Thursday, 15 August 2013, 15:45-16:25

Helmut Hofbauer

[www.philohof.com](http://www.philohof.com)

[helmuthofbauer@hotmail.com](mailto:helmuthofbauer@hotmail.com)

## Folie 1

---

**HH2**

Ladies and gentlemen, please do not expect to learn anything about the Gettier problem from my talk. I do not understand anything about the Gettier problem.

Helmut Hofbauer; 03.09.2013

# „gettier problem“ – Search on philpapers.org

- Allan Hazlett, A Gricean Approach to the Gettier Problem.
- James Beebe & Joseph Shea (forthcoming). Gettierized Knobe Effects. *Episteme*.
- Kenneth Boyd & Jennifer Nagel (forthcoming). The Reliability of Epistemic Intuitions. In Edouard Machery (ed.), *Current Controversies in Epistemology*.
- Michael Hannon (forthcoming). Fallibilism and the Value of Knowledge. *Synthese*.
- Jennifer Nagel, Valerie San Juan & Raymond A. Mar (forthcoming). Lay Denial of Knowledge for Justified True Beliefs. *Cognition*.
- Ian M. Church (2013). Getting 'Lucky' with Gettier. *European Journal of Philosophy* 21 (1):37-49.
- Ian M. Church (2013). Manifest Failure Failure: The Gettier Problem Revived. *Philosophia* 41 (1):171-177.
- Alessandro Giordani (2013). A Logic of Justification and Truthmaking. *The Review of Symbolic Logic*:1-20.
- Avram Hiller (2013). Knowledge Essentially Based Upon False Belief. *Logos and Episteme* 4 (1):7-19.
- Brent G. Kyle (2013). Knowledge as a thick concept: explaining why the Gettier problem arises. *Philosophical Studies* 165 (1):1-27.
- Jennifer Nagel (2013). Defending the Evidential Value of Epistemic Intuitions: A Reply to Stich. *Philosophy and Phenomenological Research* 82 (3):541-561.
- Jennifer Nagel (2013). Motivating Williamson's Model Gettier Cases. *Inquiry* 56 (1):54-62.
- John Turri (2013). A conspicuous art: putting Gettier to the test. *Philosophers' Imprint* 13 (10).
- Timothy Williamson (2013). Gettier cases in epistemic logic. *Inquiry* 56 (1):1-14.
- Timothy Williamson (2013). Response to Cohen, Comesaña, Goodman, Nagel, and Weatherson on Gettier Cases in Epistemic Logic. *Inquiry* 56 (1):15-27.
- B. J. C. Madison (2012). Review of Stephen Hetherington's How to Know: A Practicalist Conception of Knowledge. *Notre Dame Philosophical Reviews*.
- Alan Musgrave (2012). Getting Over Gettier. In James Maclaurin (ed.), *Rationis Defensor: Essays in Honour of Colin Cheyne*. Springer.
- Jennifer Nagel (2012). Mindreading in Gettier Cases and Skeptical Pressure Cases. In Jessica Brown & Mikkel Gerken (eds.), *Knowledge and Skepticism*.
- Giuseppe Primiero (2012). Offline and Online Data: on upgrading functional information to knowledge. *Philosophical Studies* 164 (2):371-386.
- Sven Bernecker (2011). Keeping track of the Gettier problem. *Pacific Philosophical Quarterly* 92 (2):127-152.
- Elijah Chudnoff (2011). What Should a Theory of Knowledge Do? *Dialectica* 65 (4):561-579.
- John M. DePoe (2011). Gettier's argument against the traditional account of knowledge. In Michael Bruce & Steven Barbone (eds.), *Just the Way Things Are: Essays in Western Philosophy*. Wiley-Blackwell.
- Neil Feit & Andrew Cullison (2011). When does falsehood preclude knowledge? *Pacific Philosophical Quarterly* 92 (3):283-304.
- B. J. C. Madison (2011). Combating Anti Anti-Luck Epistemology. *Australasian Journal of Philosophy* 89 (1):47-58.
- John Turri (2011). Review of Robert C. Roberts and W. Jay Wood, *Intellectual Virtues*. *Philosophy and Phenomenological Research* 82 (3):611-620.
- John Turri (2011). Manifest Failure: The Gettier Problem Solved. *Philosophers' Imprint* 11 (8).
- Masahiro Yamada (2011). Getting It Right By Accident. *Philosophy and Phenomenological Research* 83 (1):72-105.

## Folie 2

---

**HH1**

Because some people say that the Gettier problem is no longer relevant in the present philosophical discussion: here are the publications on the Gettier problem in the last three years (2011-2013).

Helmut Hofbauer; 03.09.2013

# My hypotheses:

1. There is a **mechanistical** model of knowledge in the ‚Gettier problem‘.
2. Epistemologists seem **not to be aware** of that.
3. This can be studied by **looking at the logical inferences** in the original Edmund Gettier article (1963).

### Folie 3

---

**HH3**

My central hypothesis is that the Gettier problem is not about HUMAN knowledge. And this can be studied best by looking at the logical inferences in the original Edmund Gettier article from 1963.

Helmut Hofbauer; 03.09.2013

# „Philosophical Intercultural Communication“

1. The Gettier problem - an effective **barrier to communication**
2. The Gettier problem effectively **blocks the access to philosophy.**
3. The Gettier problem **leads to a self-doubts** in persons not trained in logic.

## Folie 4

---

**HH4**

My talk about the Gettier problem belongs to my project of 'philosophical intercultural communication'. Philosophers who take the Gettier problem seriously have intuitions which are so different from my intuitions that communication between me and them fails.

Helmut Hofbauer; 03.09.2013



# The purpose of Gettier's counterexamples

is to show that the 'Standard Analysis of Knowledge' is **insufficient**.

## Knowledge as Justified True Belief (JTB)

S knows that  $p$  iff

- i.  $p$  is true;
- ii. S believes that  $p$ ;
- iii. S is justified in believing that  $p$ .

Ichikawa, Jonathan Jenkins and Steup, Matthias, "The Analysis of Knowledge", The Stanford Encyclopedia of Philosophy (Winter 2012 Edition), Edward N. Zalta (ed.), URL = <<http://plato.stanford.edu/archives/win2012/entries/knowledge-analysis/>>.

# 1<sup>st</sup> Gettier counterexample

*Case I:*

Suppose that Smith and Jones have applied for a certain job. And suppose that Smith has strong evidence for the following conjunctive proposition:

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

[...] Proposition (d) entails:

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

[...] But imagine, further, that unknown to Smith, he himself, not Jones, will get the job. And, also, unknown to Smith, he himself has ten coins in his pocket.”

Edmund Gettier: Is Justified True Belief Knowledge?, in: *Analysis* 23 ( 1963): 121-123.

## ...but nobody would draw such an inference!

1. Smith will **not learn anything** from that logical inference!  
(Lack of motivation)
2. People **would refuse to** do it arguing: „**These two things (job & coins) haven't got anything to do with each other!**“
3. Interesting is: Gettier theorists **do not differentiate** between improbable, probable or no logical inferences in Gettier-style examples.

## Folie 7

---

### HH5

My first criticism is that no normal human being would or could draw such an inference as 'The man who will get the job has ten coins in is pocket.' This inference might be logically correct (I am no logician.) but it violates our sense of relevance in everyday situations.

Helmut Hofbauer; 03.09.2013

## Another example of a ,logical inference‘:

“The intuition probe we used to explore cultural differences on Gettier cases was the following:

Bob has a friend, Jill, who has driven a Buick for many years. **Bob therefore thinks that Jill drives an American car.** He is not aware, however, that her Buick has recently been stolen, and he is also not aware that Jill has replaced it with a Pontiac, which is a different kind of American car. Does Bob really know that Jill drives an American car, or does he only believe it?”

Weinberg, J., Nichols, S. and Stich, S. 2001. “Normativity and Epistemic Intuitions,” *Philosophical Topics* 29, 429–460. Url: <http://rucss.rutgers.edu/ArchiveFolder/Research%20Group/Publications/NEI/NEIPT.html>

## Folie 8

---



### HH6

Epistemologists seem to lack the intuition to discriminate between 'weird' and normal logical inferences. This here (Jill drives an American car.) is a normal one.

It might be the case that their incompetence of judging which logical inferences we would draw in everyday life is caused by their training in formal logic.

Helmut Hofbauer; 03.09.2013

# ...but this logical inference is a fraud!

1. Smith believes that  $p$  (that **Jones will get the job**).
2. Smith is justified in believing that  $p$ .
3.  $p$  entails  $q$  (**The man who will get the job has ten coins in his pocket.**)  „Content blinding“
4.  $q$  is true: **Smith gets the job, and he has ten coins in his pocket.** But not  $p$ .  Placing a cuckoo's egg into Smith's nest behind his back.

## Folie 9

---

### HH7

For epistemologists the logical inference from p (Smith is justified in believing that Jones will get the job, and Smith sees that Jones has 10 coins in his pocket.) to q (The man who will get the job has 10 coins in his pocket.) is sound.

I have problems with it because 'content blinding' is involved: after substituting 'Jones' by 'the man', the content 'Jones' is covered and one can sell us any other man who will get the job and has 10 coins in his pocket instead.

Helmut Hofbauer; 03.09.2013



## ...but Smith is not taken seriously!

We conclude that

- Smith believes  $q$  („The man with ten coins in his pocket will get the job.“),
- Smith is justified in believing  $q$ ,
- and  $q$  is true.

1. To arrive at that result, Smith has to **suffer from amnesia**. He has to forget that he believed  $q$  in virtue of believing that  $p$  (that **Jones will get the job**).
2. They do **not even care about what Smith knows!** If we asked Smith: “Did you know that  $q$  (that **the man who will get the job has ten coins in his pocket.** )?” – Smith would respond: “No, because I do not know how many coins there are in my pocket!”

## Folie 10

---

**HH8**

My second argument (The first one was that no human being could or would draw such a logical inference.) is that the logical inference does not work because Smith, if he is a real human being, will not forget that he had meant 'Jones' when he had believed that 'The man who will get the job has 10 coins in his pocket.'

Helmut Hofbauer; 03.09.2013

# Alvin Goldman: electric-eye doors?

from the central ones. With this in mind, consider how tempting it is to say of an electric-eye door that it “knows” you are coming (at least that *something* is coming), or “sees” you coming. The attractiveness of the metaphor is easily explained on my theory: the door has a reliable mechanism for discriminating between something being before it and nothing being there. It has a “way of telling” whether or not something is there: this “way of telling” consists in a mechanism by which objects in certain DOE relations to it have differential effects on its internal state. By contrast, note how artificial it would be to apply more traditional analyses of ‘know’ to the electric-eye door, or to other mechanical detecting devices. How odd it would be to say that the door has “good reasons,” “adequate evidence,” or “complete justification” for thinking something is there; or that it has “the right to be sure” something is there. The oddity of these locutions indicates how far from the mark are the analyses of ‘know’ from which they derive.

Alvin Goldman: Discrimination and Perceptual Knowledge, in: *The Journal of Philosophy*, Vol. 73, No. 20 (Nov. 18, 1976), pp. 771-791. Here: p. 791

## Folie 11

---

**HH9**

The case is different with electric-eye doors, computer programs and robots. A computer program might be written in a way such that it infers  $q$  (The man who will get the job has 10 coins in his pocket) from  $p$  (Jones will get the Job, and Jones has 10 coins in his pocket.) and forgets  $p$ . This is why I think that the Gettier problem is about the knowledge of machines (or the imitation of knowledge), and not about human knowledge.

Helmut Hofbauer; 03.09.2013

## ...but this is no possible situation!

The personnel office has a set of file cards on a certain job. On one side of each card is written whether or not an applicant will get the job; on the other side is written the number of coins that applicant has in his pocket. Which of the following cards do you need to turn over to determine whether the italicized claim is true? *The man who will get the job has ten coins in his pocket.*

Jones will get the job	Jones will not get the job	Jones has seven coins in his pocket	Jones has ten coins in his pocket
------------------------------	----------------------------------	---	---

Don S. Levi: The Gettier Problem and the Parable of the Ten Coins, in: *Philosophy*, Vol. 70, No. 271 (Jan., 1995), pp. 5-25.

**HH10**

In his seminal (for me it is 'seminal') article 'The Gettier Problem and the Parable of the Ten Coins' Don S. Levi has shown that the Gettier problem falls into pieces when the blanks are filled out and it is told like a real story.

(The Gettier problem turns out to be a shortened story in which some important details are left out.)

The Gettier problem turns out to be context free (like the card game on the slide). It lacks the context of a situation.

That's another argument against the claim that the Gettier problem is about human knowledge, for human beings are always in situations.

Helmut Hofbauer; 03.09.2013

# The „veritic luck“ – interpretation

How epistemologists interpret the results of Gettier's counterexamples:

Smith is right in that **„The man who will get the job has ten coins in his pocket.“** – but he is luckily right.

**Truth is taken literally:**

**„The man who will get the job has ten coins in his pocket.“**

= (equals to:)

**„The man who will get the job has ten coins in his pocket.“**

**HH11**

The standard interpretation of the Gettier problem by the epistemologists is the so called 'veritic luck'-interpretation: Smith was right, but luckily right. He could easily have been wrong.

The 'veritic luck'-interpretation implies that truth is understood literally:

Smith says: "The man who will get the job has 10 coins in his pocket." - and epistemologists just ask: "True or wrong?" They do not ask: "What did he mean by saying that."

Ladies and gentlemen, if you take my words literally, I will take that as an impoliteness.

Helmut Hofbauer; 03.09.2013



# „We, intuitively, would not say that S knows“

How epistemologists interpret the Standard Analysis of Knowledge:

## Knowledge as Justified True Belief

*We know (or intuitively feel) that*

S knows that  $p$  iff

- i.  $p$  is true;
- ii. S believes that  $p$ ;
- iii. S is justified in believing that  $p$ .

**HH12**

Another strange thing (but there are only strange things in the Gettier problem) in the interpretation of the Gettier problem happens to the Standard Analysis of Knowledge.

The Standard Analysis starts of with 'S knows that p iff...i, ii, iii'.

But epistemologists tell Gettier cases and then say: "But intuitively we would not say that S knows."

(In the original Edmund Gettier article there is not need for this intuition, for the text says it clearly that in both Gettier counterexamples Smith does not know.)

By doing that they add something to the Standard Analysis of Knowledge: instead of 'S knows that p iff... i, ii, iii' they take it to be 'We intuitively feel that S knows that p iff...i, ii, iii'.

I wonder where that 'We intuitively feel...' comes from.

And I wonder if this is not an indication for the fact that epistemologists are mistaken about their project: that they believe to be discussing knowledge while, in reality, discussing something else, e.g. mindreading.

Helmut Hofbauer; 03.09.2013

# Are logical inferences automatisms?



„Let’s suppose that  $p$  is something that I am justified in believing. And let’s suppose **that  $p$  clearly implies  $q$** . There is no doubt whatever that  $p$  implies  $q$ ...

**HH13**

I am no logician.

So what I would like to know is, whether we draw inferences (whether this is a human action)?

...or whether the logical inference is already there, no matter whether we draw it or not.

The first words of Peter Millican when presenting the Gettier problem on YouTube-video seem to confirm the second option: that we just see that 'p clearly implies q' because the inference is already there - and does not need to be drawn.

Helmut Hofbauer; 03.09.2013

## 2<sup>nd</sup> Gettier counterexample

*Case II:*

Let us suppose that Smith has strong evidence for the following proposition:

(f) Jones owns a Ford.

[...] Let us imagine, now, that Smith has another friend, Brown, of whose whereabouts he is totally ignorant. Smith **selects** three place names quite **at random** and **constructs** the following three propositions:

- (g) Either Jones owns a Ford, or Brown is in Boston.**
- (h) Either Jones owns a Ford, or Brown is in Barcelona.**
- (i) Either Jones owns a Ford, or Brown is in Brest-Litovsk.**

Each of these propositions is entailed by (f). Imagine that Smith realizes the entailment of each of these propositions he has constructed by (f), and proceeds to accept (g), (h), and (i) on the basis of (f).”

Edmund Gettier: Is Justified True Belief Knowledge?, in: *Analysis* 23 ( 1963): 121-123.

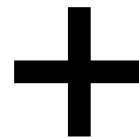
**HH14**

Again: I am no logician.

But if I read the text of the second Gettier counterexample, I see that Smith is doing a lot. The inference isn't just there. Smith has to SELECT place names and CONSTRUCT the inferences. And he selects the place names at RANDOM.

Helmut Hofbauer; 03.09.2013

# Is logic an automatism?



**HH15**

Are logical inferences human actions, or are they automatisms (are they already there)?

If I take a walk and see 2 apples and after 100 metres see another 2 apples, do I have to infer that I have seen 4 apples?

Or am I free to say that I have seen 2 apples and, later on, another 2 apples?

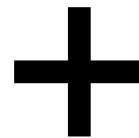
Is there any freedom or total constraint?

Does anybody know what logicians say about that?

Helmut Hofbauer; 03.09.2013



# Is logic an automatism?



## Folie 18

---

### HH16

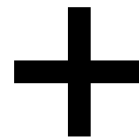
And what if I take a walk, see 2 apples, then, after 100 metres, see 2 plums and, after another 50 metres, see 1 plum...

Do I have to say that I have seen 5 pieces of fruit?

Or am I free to say that I have seen 2 apples, then 2 plums, then another plum?

Helmut Hofbauer; 03.09.2013

# Is logic an automatism?



## Folie 19

---

### HH17

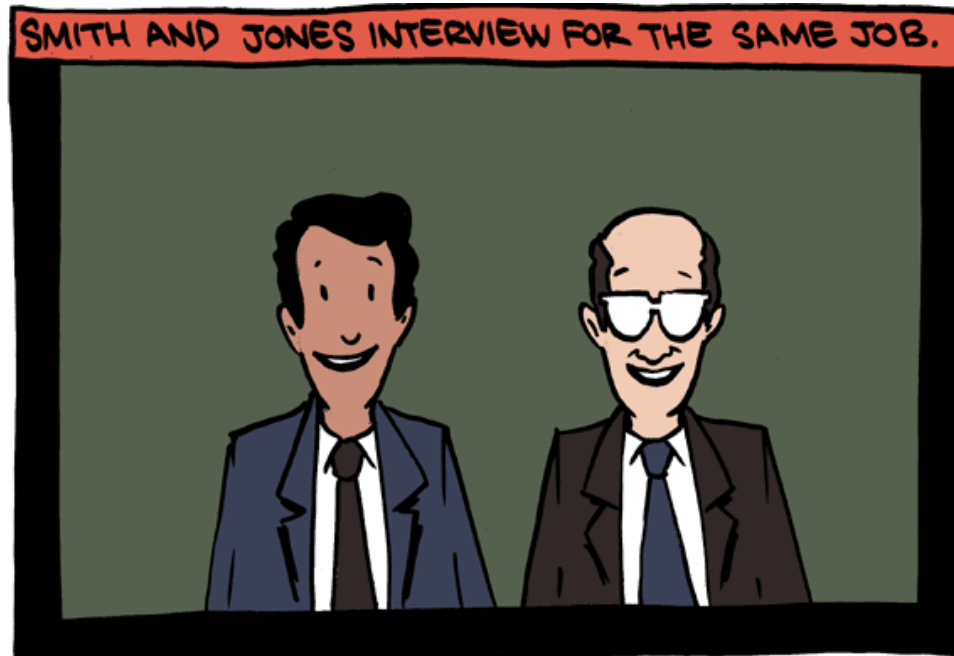
And what if I take a walk and see 2 apples and, after 100 metres, see an number of stones...

Do I have to count the stones and then say: "I have seen 2 apples and 64 stones."

Or am I free to say e.g.: "I have seen 2 apples" - and not mention the stones at all?

Helmut Hofbauer; 03.09.2013

# Is it unavoidable that from $p$ follows $q$ ?



- The man who will get the job has a nose.
- The man who will get the job wears shoes.

<http://www.smbc-comics.com/index.php?db=comics&id=2458>

**HH18**

Why do I HAVE to connect logically coins with a job (if I do not want to)?

Do I have to connect them because it is a logical inference and thus compelling?

Or am I free to look at Jones' coins without counting them (because I am distracted) and to not infer that 'the man who will get the job has 10 coins in his pocket' (because I do not even know how many coins there are in Jones's pocket)?

And what if Jones had 42.079 hairs on his had? Am I compelled, by sheer logic, that 'the man who will get the job has 42.079 hairs on his had?'

Helmut Hofbauer; 03.09.2013

# Are scientific methods automatisms?

„These cautionary terms remind us that, from the perspective of most qualitative researchers, **methods are understood *not* to have ‚stand-alone integrity‘. They do not, by themselves, produce meaningful outcomes.** They are not, in and of themselves, guarantees of quality. **As researchers, we must be creative in our application of these methods.**

[...] Most methods will also describe some of the routes which we can take to get there. [...] But in all cases, there are many ways to get where you are going, and **it is up to you to choose and justify the best route for your purposes.**“

## Does applying a scientific method mean: not to do anything yourself?

Jonathan A. Smith, Paul Flowers, Michael Larkin: *Interpretative Phenomenological Analysis*. SAGE, Los Angeles 2012 (2009), p. 40.

**HH19**

These are things that never were explained properly and made clear to me:

Do we draw logical inferences (=do we do something when we infer logically), or do logical inferences force us to go a certain way (because they are already there, independently of what we do, and we have to follow them because they discriminate true from false)?

Do we do logical inferences, or do they force us?

And scientific methods? - Do we apply scientific methods, or do they apply us?

(The quote on the slide says that we are free to apply scientific methods. But I suspect that when professors at university asked me to apply a scientific method, what they really wanted to say was: "Don't do anything (by yourself)!!!"

Helmut Hofbauer; 03.09.2013