

Solving the Lottery and Gettier Problems

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In the fallibilist epistemology of C.S. Peirce (1878) and similar philosophers we are told that the best way to think of knowledge is in a scientific sense – that is, knowledge cannot be built on a “foundation” but instead must be flexible enough to be modified as we learn new things about the world. As a result, for most philosophers in this school, the only “knowledge” we can have is a set of theories about the world that seem to accurately describe our experiences and prove to be useful and beneficial in informing our actions. Perhaps the strongest argument against this position comes from the Lottery and Gettier problems which state respectively that one can never be adequately sure of certain facts about the world, thus casting doubt on “how sure” we must be to consider something knowledge, and similarly that it is entirely possible for us to have knowledge without being aware of it. In answering this position, philosophers Keith Lehrer and Thomas Paxson (1966) proposed the idea that knowledge should be considered “undefeated justified true belief,” thus modifying our very definition of knowledge to answer the objections of Gettier and others. While this modification may indeed present an acceptable answer to the objections of Gettier (1963) it is within the framework of the more extreme pragmatists like John Dewey that we find the true answer to these important considerations.

For a pragmatist, what we call “knowledge” can only be derived from the ideas that we find useful and accurate in our lives. For example, if we see a mountain lion we experience fear and run from the creature. This is the case because we recognize the cougar as a dangerous predator that could do us serious harm. If we alternatively had the idea that the mountain lion is a friendly creature in need of affection we would soon find ourselves in dangerous straits indeed. For a pragmatist, it is practical and prudential

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considerations like these that give our ideas weight. We might even go so far as to say that pragmatism (and particularly the related falsificationism of Karl Popper) amounts to a kind of epistemological Darwinism: the fittest and most accurate beliefs are carried forward while those that fail to serve a useful purpose are eliminated. However, a pragmatist would not in fact state that “any idea that serves a purpose” is correct outside of the immediate short term. In fact the best beliefs are those that carry humanity *as a whole* forward in the long term rather than simply individuals in the most immediate sense. It is easy to see how the philosophy of pragmatism can solve the Lottery and Gettier problems by simply considering the nature of the problems themselves. We might divide the type of problems with each respective “problem” by dividing them into two categories: propositions where the subject lacks information about the present state of things and propositions where the subject lacks information about the *future itself*. Charting several examples of each problem will likewise prove useful:

Example	Information lacking	Justification for (false) belief	Problem
Do I know that I have lost money by playing the lottery? How sure of the outcome must I be to call myself sure? (Lottery problem)	The outcome of the lottery drawing itself.	The odds of winning are slim but I might beat the odds.	Lack of information of the future: unknowable.
Jones thinks (and is justified in believing that) Smith is getting a job and by extension believes that the person getting the job has ten coins in his pocket. Jones is in fact getting the job and has ten coins in his pocket also. (Gettier problem)	Jones will be the one offered the job.	Jones is told that he will not get the job by a reliable source.	Lack of information about the present.

Disjunctive addition: Jones either owns a Ford or Brown is in Brest-Litovsk. We believe that Jones owns the Ford but are wrong; we have no information about Brown's actual whereabouts but are correct in stating that he is in Barcelona. (Gettier problem)	Jones does not in fact own the Ford.	Jones is seen driving the Ford in question.	Lack of information about the present.
A broken clock happens to be correct but we are unaware it is non-functional. Do we "know" what time it is? (Gettier problem)	The clock is broken.	Clocks generally tell time accurately.	Lack of information about the present.
I have a vision about the future that turns out to be correct. Did I "know" this fact about the future? (Gettier problem with some elements of the Lottery problem)	The true outcome of events at the time I have my vision.	No reliable justification for belief.	I am the victim of epistemic luck.

It is clear from this visual representation that the Gettier problems universally stem from a lack of information about the present while the Lottery problems hinge on information that could not possibly be available in the present. For this reason the pragmatist can easily dismiss the objection of the Lottery problem by simply affirming that while it is certainly possible to have a winning lottery ticket, counting this as knowledge would simply not be useful and certainly imprudent. Likewise it would be imprudent for a person to assume automatically that they *do not* hold the winning lottery ticket. Though the odds are certainly stacked against their winning it is in fact the case that someone must win the lottery. Therefore for a pragmatist the Lottery problem is not in fact a problem of calling something knowledge: the outcome of the lottery cannot be known beforehand and therefore whether we have won or lost is an irrelevant question because it is not useful knowledge until we do know the outcome of the drawing. The same can be said about all "knowledge" of the future: any time we are said to

“know” something about events that have not occurred and turn out to be correct we are the victim of epistemic luck. It would be very foolish for an individual to take actions based on something that has not occurred and therefore for the pragmatist, epistemic luck is irrelevant because any utilitarian benefits it brings about will be by luck alone and more often than not we may take an action that will *not* provide gross utilitarian benefit.

Another consideration might be stated as the “cost” of the belief. In the case of the classic lottery case, the “cost” of believing that we have won or lost the lottery is most likely low: we will simply hold onto our ticket or discard it depending on our belief. However, if we were to take a more dramatic action, such as purchasing a car based upon our belief that we have won the drawing the cost might be high indeed. The pragmatist will argue that the cost of the belief will be taken into consideration when determining our “knowledge”: low cost beliefs are easier to discard and modify while high cost beliefs will be grasped more closely because of the consequences associated with changing them or being incorrect in their formulation. However, a high cost belief will be very quickly modified if it becomes highly unreliable, as in the case of buying a car on the belief that we have won the lottery. A similar consideration can be found in cases of complete epistemic luck, as in the example of one “predicting” the future. Since the facts of the future can not be reliably known as far as we are aware, to call a vision about events that are yet to occur “knowledge” would be inconceivable to a pragmatist because a belief of this nature will probably not yield a utilitarian gain of any sort, at least reliably. While the *reliability* of a belief is not inherently important to the pragmatist, in most cases having reliable beliefs will be beneficial in a utilitarian sense.

A pragmatist would answer the Gettier problem in a similar fashion. In the original Gettier problem, in which a man names Jones has a mistaken belief about receiving a job offer, we are led to believe that the fallibilist account of knowledge is flawed because it cannot account for “accidental knowledge.” However, we can see the pragmatist’s response to this by simply considering the nature of the problems at hand. In the examples of the man maintaining a mistaken belief in who will receive a job offer

and the example involving the owner of a Ford and the location of another individual the common element is that the subject in question “knows” something because of an epistemological accident: in each case the individual constructs a statement about the nature of the world (and a disjunctive syllogism, in the latter case) that is in fact correct despite the original “facts” of the case being incorrect. The pragmatist answer to this problem is that in neither case does the Gettier problem’s true outcome count as knowledge. In the first case, our subject lacks knowledge about who will receive a job. No matter how justified the belief that Smith will receive the job, this is in fact an incorrect belief. However, for the pragmatist (or fallibilist), *this incorrect belief counts as knowledge up until the time that it becomes useless*. If the subject of the question takes an action based upon his incorrect belief (such as asking someone at the job interview if Smith has indeed been hired) he may very well discover his mistake and revise his belief. In contrast, the fact that Jones knows that “the person who will get the job has ten coins in his pocket” is largely an irrelevant side-note because this is not likely to be a useful belief. Likewise, the fact that he is correct in this belief is certainly not useful in informing any meaningful course of action and is therefore not knowledge by the pragmatist definition. Perhaps equally important is the pragmatist conception of “knowledge over time”: knowledge is not something that we can acquire in a single induction or by singular evidence as in the case of Jones. Instead knowledge is found over time with scientific inquiry – certainly not the way Jones has “learned” of the demise of his job prospects. A similar objection can be made to the second example involving the owner of a Ford. The fact that the individual referred to does not actually have accurate information about the owner of the Ford is not important as long as his belief about the Ford’s owner is useful. In a similar manner we can totally reject any notion that by constructing a disjunctive addition about the whereabouts of a third individual he somehow “knows” where that person is. While this belief might be true, it completely lacks any justification and does not at all meet the criteria for knowledge under any definition. As with the example of the Lottery problem, the pragmatist will also point to the idea of

“potential for action” as the greatest measure of the utility of knowledge. In the case of the disjunctive addition, we may feel justified in believing a certain proposition, P, therefore giving logical grounds to assert the proposition P or Q. This expression may be true because of the truth of Q rather than P but this offers little practical course of action because Q lacks justifications of its own. In simpler terms, our justifications for P will lead us to a course of action that will be judged on its utilitarian benefits. However, the unknown truth of Q is unlikely to lead us to any course of action at all because we are unaware of its truth value and justification. In this sense, the truth of Q is irrelevant because this fact alone is highly unlikely to provide us any benefits. In this sense, the pragmatist will surely discount the disjunctive addition as an amusing but useless epistemological occurrence.

A final example of a Gettier problem involves a broken clock that happens to present a fairly correct time to an unknowing passerby. In contrast to the first two Gettier problems mentioned, in this case the clock’s reading *should be counted as knowledge* according to the pragmatist account. Because the clock is fairly correct and seems to fit with the observer’s general knowledge of the time of day, the time on the clock is knowledge because it is useful in the most immediate sense. If the clock were observed to be far from the time of day that would be expected it would be easily disregarded as incorrect by the observer in question. However, as long as the clock is fairly consistent with the observer’s other knowledge regarding the time of day, and is useful in the sense that it is close enough to the actual time to not negatively affect the observer’s schedule, it can be counted as knowledge simply because of the utility it provides.

While the Lottery and Gettier problems seem to cause problems for fallibilist accounts of knowledge, they are easily answered by the pragmatist account. For the pragmatist, the best measure of our knowledge is the utility it provides us. In the case of the Lottery problem or any proposition that involves knowledge that is by nature unknowable because it cannot be recognized reliably in the

present¹ a pragmatist will simply answer that because of the ambiguity involved any “knowledge” that we derive regarding the future is unreliable we cannot count it as useful and therefore does not meet our criteria for knowledge up until the time that the relevant facts of the future have been revealed (i.e. the outcome of the lottery drawing, after which we may “know” that we have won or lost). The Gettier problems present a more complicated challenge for the pragmatist but ultimately not a serious one. Since knowledge is “whatever works” (at least according to pragmatist philosopher William James) we need not concern ourselves with cases in which we come to a true conclusion without being aware of it (for example, the cases of Jones getting the job and the mysterious Ford owner – in both of these cases we cannot count the facts that we “know” by accident because we are not in fact aware of them which therefore makes them useless in a practical sense). However, in the case of the broken clock we can indeed call the time on the face “knowledge” because as long as it is a useful (close enough) measure we can derive utility from it, thus making it knowledge according to the pragmatist account. In all of these cases, the problem lies not in the justification for the beliefs (presuming that they are sound in each example) *but in the truth of the belief itself*. In a very real sense, the truth of the proposition is irrelevant as long as it provides us with utilitarian benefits. As a result of this logical conclusion, the pragmatist will ultimately not focus on seeking the truth of a proposition but instead on finding the most useful beliefs to hold.

REFERENCES

- Gettier, E. (1963) “Is Justified True Belief Knowledge?” *Analysis* 23: 121-123.
Lehrer, K. and T. Paxson. (1966) “Knowledge: Undefeated Justified True Belief.” *The Journal of Philosophy* 66: 225-237.

¹ We are here implicitly rejecting the Clairvoyance Objection because there is no evidence that it presents a real example to challenge our account. In other words, if one *could* reliably predict the future we would have to revise our account but as there is no evidence that this can regularly and accurately occur, we need not concern ourselves with it.

Peirce, C.S. (1878) "How to Make Our Ideas Clear." In *Writings of Charles S. Peirce*, vol. 3. Bloomington, IN: Indiana University Press. Available at <http://www.marxists.org/reference/subject/philosophy/works/us/peirce.htm>