The Lottery Paradox

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The ‘lottery paradox’ is a kind of skeptical argument: that is, it is a kind of argument designed to show that we do not know many of the things we ordinarily take ourselves to know. One way of presenting the paradox is based on the following plausible claim:

If I know that \( p \), and know that if \( p \), then \( q \), I am in a position to know that \( q \).

We generate cases of the paradox by substituting in for ‘\( p \)’ some claim which we ordinarily take ourselves to know, and substitute in for ‘\( q \)’ some claim which follows from the claim substituted in for ‘\( p \)’ which we take ourselves not to be in a position to know.

Here are some examples from Hawthorne’s Knowledge and Lotteries in the coursepack:

“...many normal people of modest means will be willing, under normal circumstances, to judge that they know that they will not have enough money to go on an African safari in the near future. And under normal circumstances, their conversational partners will be willing to accept that judgement as correct.

However ... [w]e do not suppose that people know in advance of a lottery drawing whether they will win or lose. But what is going on here? The proposition that the person will not have enough money to go on an African safari this year entails that he will not win a major prize in a lottery. If the person knows the former, then isn’t he at least in position to know the latter by performing a simple deduction?”

Here, we have the following claims filled in to the schema above:

\[
\begin{align*}
P &= \text{I will not have enough money to go on an African safari next year.} \\
q &= \text{I will not win a major prize in a lottery for the rest of this year.}
\end{align*}
\]

We are inclined to say that someone can know the truth of \( p \), but that this knowledge does not put him in a position to know the truth of \( q \). But this is puzzling, since \( q \) follows from \( p \) – and the person might know this.

Other examples of the same sort are easy to generate, and needn’t involve lotteries.
“I am inclined to think that I know that I will be living in Syracuse for part of this summer. But once the question arises, I am not inclined to think that I know whether or not I will be one of the unlucky people who, despite being apparently healthy, will suffer a fatal heart attack in the next week.”

“I am inclined to think that I know where my car is parked right now. But once the question arises, I am not inclined to think that I know whether or not I am one of the unlucky people whose car has been stolen during the last few hours.”

Can you see how these cases can be fit into the model of the example of the lottery and the African safari?

In these examples, we have some proposition — following Hawthorne, let’s call it an ordinary proposition — which is some proposition of the kind of which we usually take ourselves to have unproblematic knowledge, and some other proposition — the lottery proposition — which is entailed by the ordinary proposition but which we do not usually take ourselves to know.

So, in responding to these cases, it looks like we have three choices:

1. Deny that we know the ordinary proposition.
2. Concede that we know the lottery proposition.
3. Deny that knowing \( p \), while validly deducing \( q \) from \( p \), is enough to know \( q \).

The problem — and the reason why this is an example of a paradox — is that none of these options seems very appealing.

Against (1): the number of propositions which can play the role of ordinary propositions in an argument of this sort. Why, arguably, this leads to the view that we know hardly anything which we usually take ourselves to know.

Against (2): if we say that we know that, for example, person 1 will not win the lottery, then it seems plausible, by parity of reasoning, to say the same thing about person 2, person 3, etc. But then it seems that we can know of an arbitrarily large percentage of the ticket holders that they will not win the lottery. But this seems absurd.

Against (3): suppose that you really do know some proposition, and that you are correct in deducing some other proposition from it — and that you know that you are correct in doing so. How could you fail to know the deduced proposition?