

15. COUNTEREXAMPLES TO NOZICK'S ACCOUNT OF TRANSMISSION OF KNOWLEDGE VIA PROOF

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ABSTRACT. This paper reveals and corrects a flaw in Nozick's account of knowledge via inference. First, two counterexamples are provided by considering cases which would not typically be regarded as instances of knowledge although they are counted as such by Nozick's theory. Then the general form of these counterexamples is given. From this it is apparent that the counterexamples show that Nozick's theory fails to take account of cases in which the subject infers q from p , but in counterfactual situations some proposition other than p would entail q . In view of this, the theory is then revised to eliminate the counterexamples.

Although knowledge is not always closed under known logical implication on Nozick's account,¹ he does allow that we can sometimes come to know something by making an inference of the following sort: Kp (i.e. knowledge that p) & $K(p \rightarrow q)$; therefore Kq .² If this were not true, then we could not come to know something via a deduction or a proof. However, since inferring a belief from knowledge will only sometimes produce knowledge, Nozick needs to specify the conditions under which knowledge will be preserved.

On Nozick's account, a person S knows, via method M , that q if and only if

- (1) q is true.
- (2) S believes, via method M , that q .
- (3) If q were false and S were to use Method M to arrive at a belief whether q , then S wouldn't believe, via M , that q .
- (4) If q were true and S were to use Method M to arrive at a belief whether q , then S would believe, via M , that q .³

If q is inferred from p and $(p \rightarrow q)$, both of which are believed, then conditions (1) and (2) will automatically be satisfied. However, conditions (3) and (4) may not be met. So Nozick specifies further conditions so that conditions (3) and (4) will be fulfilled whenever p is inferred from

p and $(p \rightarrow q)$. To insure that condition (3) will be satisfied, Nozick adds the following condition:

- (3.1) If q were false and S were to use M to arrive at a belief whether p , then either S wouldn't believe that p , or S wouldn't infer q from p .⁴

This insures that S will not infer q from p if q is false. Either this requirement is met directly, or S wouldn't believe that p and thus wouldn't infer q from p . Therefore, S wouldn't believe that q , via inferring it from p , if q were false. So condition (3) is satisfied.

To insure that condition (4) will be satisfied, Nozick adds the following conditions:

- (4.1) If q were true and S were to use M to arrive at a belief whether p , then S would believe, via M , that p .
- (4.2) If q were true, then S would infer q from p .⁵

This insures that condition (4) is satisfied since if S believes that p and he infers q from p , then he will believe that q . Thus, S would believe that q , via inferring it from p , if q were true.

However, I have found counterexamples to this account. I think that it will generally be agreed that the following is a case of transmission of knowledge via inference:

I know that I was born in San Diego because my mother told me,
so

- (1) $K(I \text{ was born in San Diego})$.
- (2) $K(I \text{ was born in San Diego} \rightarrow I \text{ was born in the U.S.A.})$.
- (3) $\therefore K(I \text{ was born in the U.S.A.})$.

But if we add some details to this example, we will see that it does not meet condition (4.1). Suppose that my mother went on vacation to London shortly before giving birth to me. So the nearest possible world in which I was not born in the U.S.A. is the world in which I was born in London. Suppose further than on the way back from London my mother briefly visited San Francisco, where I was almost prematurely born. So the possible world in which I was born in San Francisco is a world in which I was born in the U.S.A. It is closer to the actual world than is the nearest world in which I was not born in the U.S.A. (i.e. the world in which I was born in London). In this world I would believe that I was born in San Francisco via believing what my mother told me, just as I actually believe that I was born in San Diego via believing what my mother told me.

On Nozick's account, a subjunctive 'If p was true, then q would be true' is false if there is any possible world in which p is true and q is false which is not farther from the actual world than any world in which p is false.⁶ So in this example, 'If I were born in the U.S.A, then I would believe, via believing what my mother told me, that I was born in San Diego' is false. This is so because there is a world in which I

was born in the U.S.A., but I was not born in San Diego and I don't believe that I was, via believing what my mother told me, namely the world in which I was born in San Francisco. This world is closer to the actual world than the nearest world in which I was not born in the U.S.A. Since If \lceil I was born in the U.S.A., then I would believe, via believing what my mother told me, that I was born in San Diego \rceil is just condition (4.1), that condition is not met. Thus, on Nozick's account, I do not know that I was born in the U.S.A. via inferring it from the belief that I was born in San Diego.

It might be objected that this is not really a counterexample. I claimed that the method was that of being told by my mother. But, it might be objected, the actual method is that of being told by my mother that I was born in San Diego. So condition (4.1) would be satisfied. In all cases in which I believe that I was born in San Diego via the method of being told by my mother that I was born in San Diego, if I was born in the U.S.A., then I would believe that I was born in San Diego.

However, we cannot individuate methods this finely, or condition (3) will be met even in clear cases of non-knowledge. For example, suppose that I believe that I was born in San Diego, via being told by my mother. She would never tell me that I was born in San Diego if I weren't, and she would always tell me the truth if I was born in San Diego. However, she would lie if I were born anywhere else. So it seems that I do not know where I was born. But condition (3) is met. If I were not born in San Diego and I were to use the method of being told by my mother that I was born in San Diego to arrive at a belief whether I was born in San Diego, then I would not believe that I was born in San Diego. This condition is vacuously satisfied since I would never use the method of being told by my mother that I was born in San Diego if I were not born in San Diego. So to avoid counterexamples of this type, we must construe methods as being told by someone, rather than as being told by someone that something.

Another common-sense case of transmission of knowledge via inference that does not meet the conditions of Nozick's theory is the following:

$K(\text{Bertrand bought a Pontiac}).$

$K(\text{Bertrand bought a Pontiac} \rightarrow \text{Bertrand bought a car}).$

$\therefore K(\text{Bertrand bought a car}).$

But suppose that the nearest world in which Bertrand didn't buy a car is the world in which he bought a motorcycle. Moreover, had Bertrand not bought a Pontiac, but had he still bought a car, he would have bought a Ford. In this case I would have believed that Bertrand bought a Ford. So there is a world in which Bertrand bought a car, but he did not buy a Pontiac and I don't believe that he did. This world is closer to the actual world than the nearest world in which Bertrand did not buy a car. Therefore, it's false that if Bertrand bought a car, then I would believe that he bought a Pontiac. So condition (4.1) is not met, and this is not a case of transmission of knowledge via inference according to Nozick's account. Since this would typically be regarded as a case of transmission of knowledge via inference, it is a counterexample to Nozick's account.

These two counterexamples share a general form. An inference is made from $Kp \ \& \ K(p \rightarrow q)$ to Kq . Additionally, q is general case of p . And finally, $(\exists r) [q \text{ is a general case of } r \ \& \ (r \rightarrow q) \ \& \ \text{the world in which } r \text{ is true is at least as close to the actual world as any world in which } q \text{ is false}]$. Any inference of this general form will be a counterexample to Nozick's account because in these cases, if q were true, p might not be, so S wouldn't then believe that p . Since there can be many inferences of this general form, there are many counterexamples to Nozick's account.

This suggests that condition (4.1) will have to be modified if Nozick's account of transmission of knowledge via inference or proof is to be valid. I suggest that condition (4.1) be changed to:

- (4.1*) If q were true, then there would be some r (possibly = p) such that $(r \rightarrow q)$ and it's not the case that $(q \rightarrow r)$ and if S were to use M to arrive at a belief whether r , then S would believe, via M , that r .

Also, condition (4.2) will have to be changed to:

- (4.2*) If q were true, then S would infer q from the r mentioned in condition (4.1*).

These modifications will eliminate the counterexamples. In each of the counterexamples, it was false that if q were true, then S would believe that p because there was some r distinct from p such that $(r \rightarrow q)$ and r might be true if q was, in which case S would believe r . But since condition (4.1*) specifies that S will believe this r rather than p , these cases will no longer be counterexamples. Note that the it's not the case that $(q \rightarrow r)$ clause is necessary to account for the fact that in the counterexamples q is a general case of r . Whenever, q is general case of r , r will entail q but not vice versa. So to insure that condition (4.1*) specifies that S believe the r mentioned in the counterexamples, we must specify that it's not the case that $(q \rightarrow r)$.

Also, conditions (4.1*) and (4.2*) insure that condition (4) is satisfied. Condition (4) is satisfied since if S believes that r and he infers q from r , then he will believe that q . Thus, S would believe that q , via inferring it from r , if q were true. Here I am taking the method as inferring q from some proposition which entails it rather than as inferring q from p specifically. This seems reasonable. It doesn't seem that coming to believe that q via inferring it from the belief that p and the belief that $(p \rightarrow q)$ is a different method from that of coming to believe that q via inferring it from the belief that r and the belief that $(r \rightarrow q)$. Moreover, this agrees with the generality of delineating methods of being told by someone.

ENDNOTES

¹ Robert Nozick, *Philosophical Explanations* (Cambridge: The Belknap Press of Harvard University Press, 1981), 206.

² Nozick, 230. Here I am abbreviating 'entails' by ' \rightarrow '.

³ Nozick, 179.

⁴ Nozick, 231.

⁵ Nozick, 233.

⁶ Nozick, 680-81, n. 8.

⁷ I am grateful to Neil Thomason for much help with this paper. I discovered the first counterexample during a discussion with him, and he provided considerable advice and comments on the paper.