ARTUR KOTERSKI

Juhos and Konstatierungen

1. The Origin of Konstatierungen

Béla von Juhos was Moritz Schlick’s student and disciple; his papers on empirical basis problem are deeply embedded in Schlick’s theory of Konstatierungen.

The story of Konstatierungen starts with the first book Schlick wrote, Allgemeine Erkenntnislehre (1918). Though we will not find this concept itself there, we do find something else, namely ‘fundamental judgments’:

[…] propositions in the system of judgments by virtue of which the system rests directly on real facts we may call fundamental judgments.

Then Schlick divides fundamental judgments into two groups: “[…] definitions, in the narrower sense, and historical judgments.”

This requires some additional explanation. Definitions seem to be deictive definitions. Historical judgments are descriptive sentences about directly perceived states of affairs. All the remaining propositions in science are hypothetical. Fifteen years later he argued that:

What was originally meant by “protocol sentences”, as the name indicates, are those statements which express the facts with absolute simplicity, without any moulding, alternation or addition […]

If protocols were to be really clear, he finally had to leave out historical judgments. Why? Because, as soon as you write them down, you cannot separate them from the hypothetical part of knowledge. This is just the doctrine of Konstatierungen, even if in a nutshell. Accordingly, let’s jump to his later paper to see it in detail.

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2. Schlick’s Version of Konstatierungen

Moritz Schlick’s conception of Konstatierungen was a counter-proposal to the physicalistic conception of ‘protocol’ or ‘basic’ statements. He tried to show that Neurath’s proposal was throwing empiricism abroad.

The particular theses of Neurath’s that Schlick so strongly disliked were the following:
1) All sentences are hypothetical. To be a genuine sentence is to be hypothetical.
2) The truth of any $p$ consists (if anything) in consistency with the accepted body of statements. The very word ‘truth’ is a metaphysical anachronism. And if we use it at all, we only chose to do so for our convenience in speaking.
3) Statements are compared only with statements. Anything else is just sinnlos.
4) You shall not talk about ‘the reality’, as it is Verdopplung, i.e. doubling metaphysics.

His reasons are following:
1) Even if all scientific statements are hypotheses, there must be a link between the scientific model and the world that is modeled. No such solid link—no empiricism.
2) To cultivate science we need an unambiguous criterion of truth, not truth on decision.
3) With physicalism you cannot distinguish real science from fictitious systems. To be able to do that requires having the link that lets us compare sentences with reality.
4) It is natural to talk about the link with reality, and it is constituted by Konstatierungen.

But what exactly is it? Not so easy to say. It is something of the form “So-and-so here now” plus—what is really crucial—the appropriate gesture; for example “Blue patch here now” (when, let us say, speaker’s finger points at that patch). This looks like an observational statement and from time to time Schlick used this description. What is peculiar to Konstatierungen?

We put it into four steps again:
1) Konstatierungen ($K$ for short) are observational sentences, outside of the system-language (i.e. scientific language), so they do not have to be hypothetical. And they are not. Thus we have a solid base: incorrigible observational statements.
2) As we have this kind of Archimedean point in science, we have the genuine criterion of truth: the sentence is true iff it is—by the medium of $K$—in agreement with reality. We cannot decide for reality.
3) Again, agreement with reality shows us which self-consistent system is the real science.
4) We know that $K$ are true, because we directly compare them with reality, because we do verify them—“we make them true”.

As one can see the most important feature of this type of observational sentences is their incorrigibility—they are certain. This is quite an expensive feature, because you have to:
a) put $K$ outside of science: You have to, because to keep them certain you need to say that they are timeless. So, basically speaking, you cannot write them down, as during the process of writing they become hypothetical.

b) Then you have sentences that cannot be uttered or written down—especially that when you state them (this seems to be a little bit ironic!) you have to add a gesture, and this surely cannot be written down.

c) In 1933 you have to talk about truth and about comparing sentences with reality without a good theory to support you.

Schlick did not solve these problems:

a) How there can be any process in the physical world which is timeless? As Neurath all too often noticed, it is a metaphysical idea.

b) How is $K$ a synthetic statement, when you cannot revise it? It is not empirical.

c) How can $K$ be a statement, when you cannot say it? Not only they are out of science but they are something pre-linguistic.

d) How do you compare a sentence with reality?

e) How is intersubjective verification of $K$ possible?

Let’s have a look at how Juhos deals with them.

3. Juhos’ Version

When you think about differences between Schlick’s and Juhos’ conceptions they are quite hard to find. What you see prima facie is that when Schlick talks about *Konstatierungen*, Juhos talks about $K$-sentences. But, of course, that’s too little.

Juhos wanted to defend the basic idea of *Konstatierungen*, but at the same time to avoid the unpleasant consequences we know from Schlick’s case. The basic idea of *$K$-Sätze* is—to repeat—there are some privileged sentences that have empirical content, but are not hypothetical.

Are $K$-sentences genuine sentences?

$K$-sentences are like “I feel pain”, “I see blue here now”. This is very reminiscent of Schlick’s concept, but what is really important, there is no gesture! Can we write down $K$ then? According to Juhos, yes. Then it cannot be timeless. And it isn’t.

Then how can he dismiss the argument that when you say or write anything you may forget what was at the very beginning or that, in the blink of an eye, the letters change their positions, so that in the end you say or write something completely different?

Alas, there is no really good answer to be found in Juhos’ papers. He would probably have said that when you forget what was at the beginning it is an error in action, not the one you make when you (do not) understand a $K$-sentence. And when you understand $K$, you truly know if it is true or false. Note that $K$ may be false, which was not the case in Schlick. So, when I say I see a red patch now while I do not see it I know that it is false. Cases when somebody says—as a slip of the tongue—“it is red” instead of “it is green” he described as trivial. As errors in
action. (By the way: and if it is not an error in action, i.e. when looking at the white wall you say “I see a red wall” you have a false K.) This is another difference with Schlick. He would not say it is an error. For him that would be another true K!

Then we can say that Konstatierungen are genuine sentences, they are not timeless and they can be written down. But if they are genuine sentences, can we use them in science?

Are K-sentences scientific?

Juhos’ Konstatierungen are real, though, for sure, not physicalistic statements, and cannot be translated into thing-language, even if it is true that one can deduce from the system-language a sentence that looks identical to the given K. But they are not the same, as the method of obtaining them is different: in the case of K it is direct—in the case of the K-mirror it is indirect. So Juhos says exactly what his teacher taught him: K are outside of system.

Are they useless to science? Neurath would say that, because K are not intersubjectively controllable, they are of no use at all. Not only Robinson can not understand Friday, but he is not able to understand his own diary. To put it more strongly: K is verifiable only for its owner (and only for an infinitively short moment). If K are not verifiable for others, they cannot understand them. K are not only useless, they have no meaning.

Juhos’ answer was—and again it is different from Schlick’s standpoint—that K are unverifiable only in a technical or practical way. According to him it is in principle possible to verify K. So they cannot be meaningless, as it is the logical—and not the technical—possibility of verification that decides if a sentences has meaning.

This is an example given by Juhos: There are two persons, S and B (a blind man). Let say that B perceives the sensation of blue any time S sees something blue. So B is able to test K of S in a direct, i.e. non-behaviouristic way.

Answering the question on the scientific status of K we may say as follows. They are not in the system language. But physicalism is false and the system language is not the only one. There are also other types of sentences and to describe properly some types of phenomena you have to use them. So they are indispensable to science. Schlick also thinks so. But, for the founder of the Vienna Circle they have only a verifying function. For Juhos they describe in an unquestionable way the states of affairs that cannot be described in physical language.

Are K really certain?

If K describe states of affairs, if they are not timeless, are they really certain? How do we know that K are certain? Schlick wrote that there are two procedures involved in the verification of a hypothesis. First, you have to understand it, i.e. to know its observational consequences or the method of its verification. Then you apply this method to check the truth value of your hypothesis. You can know the former, and not know the later. But in case of K these two processes coincide, so you have only one: when you understand K, you already know that it is true. And
there cannot be any doubt about it. According to Schlick it is meaningless to say: “I am not sure if I feel pain now” or “It is quite probable that I feel pain now”.

Juhos accepted this view but he put more stress on $K$’s grammar; it is grammar of Konstatierungen that secures their certainty. When we verify any hypothesis we have to check other sentences. And the truth value of this hypothesis depends on the truth value of those sentences. So, any hypothesis is a truth function of other sentences. When we know the truth value of those sentences, we know if the hypothesis is true. If $K$ is not hypothetical, then it cannot be a truth function of other sentences. But then there cannot be sentences such that knowledge of their truth value teaches us about the truth value of $K$. This also means that any two $K$ cannot contradict each other.

But what happens if we negate $K$? According to the logic we use every day, when we know that $p$ is true, we also know that not-$p$ is false and vice versa. So not-$K$ is a truth function and is hypothetical.

It seems that the negation of $K$ was a problem for Juhos’ theory. First, he wrote that negated $K$ is not $K$ anymore. Then, when he tried to show the privileged status of $K$ he wrote that they are not negated in the way the hypotheses are negated. According to him when you make a conjunction of a hypothetical sentence and its negation, you obtain something he called a complete contradiction. The only way to solve it is to cancel one of them in a purely arbitrary way. But when you have a conjunction of $K$ and not-$K$ you have a contradiction that is incomplete. Why is it incomplete? To know that not-$K$ (e.g. “This is not green”) is true you need some additional sentence, like “This is blue”. So negation of $K$ is not a truth function of only one variable. Thus when you know that $K$ is true, you do not know that not-$p$ is false at the same time.

After a short discussion with Ayer he abandoned both theses. He agreed that $K$ can be negated as any other sentence and he stated that the negated $K$ is still $K$. What he defended till the very end was the incorrigibility of $K$.

**Are $K$ really incorrigible?**

This question may look redundant as we have already talked about $K$ being certain. But remember Neurath’s example of Kalon. Kalon is a gifted scientist and he is able to write with two hands at the same time. So, with the left hand he writes that ‘Kalon states that there is a table in the room and Kalon sees it”, and with the right one that ‘Kalon states that the room is empty’. If they are incorrigible we have to accept both of them, which is not too comfortable.

First, Juhos played a trick with negation. Negated $K$ is not a function of only one variable. So, to cancel the contradiction, we have to feel the spaces. There will be no contradiction if we say that with his left hand Kalon described what he saw in a room A, and with his right hand what he saw in the other one, room B.

Even if he did not drop this idea of intuitionistic negation he would have serious problems as Kalon can make his statements precise. (Nota bene, he could just say that one of Kalon’s $K$ is true while the second is false—but it seems he did not notice this possibility.)
So, finally—can we cancel $K$? No. Defending this expensive feature, Juhos explicitly wrote that you cannot correct your $K$, because it is not the outcome of your mistake, so there is nothing to correct. We make corrections only when we make mistakes.

4. Conclusion

To avoid the pitfalls, Juhos rejected the idea that some process are timeless, so the act of “gaining $K$” must take time; it’s clear then that one can utter or write down any $K$—they are not designed as pre-linguistic entities. Because they have many features of ordinary hypotheses—they are intersubjectively testable (i.e. verifiable), they are accepted on empirical ground (and let us assume that Juhos explained it appropriately)—there is still one question pending: how it is that one cannot revise them? He thought that they cannot be subject to correction and this thesis is the last (though the most important) link with Schlick’s doctrine. In the end he repeats what we already know from Schlick: Konstatierungen do not appear as the effect of mistakes, so there is nothing to correct in them. They are incorrigible because of their nature. Then we have again the old question about possibility of such sentences. Thus having done a big circle—just to avoid pitfalls—Juhos came back to the point of departure. That is why we may say it seems Juhos’ was not successful in rescuing Konstatierungen as descriptions of reality that are absolutely certain.

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