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TRUTH, KNOWLEDGE, AND PRESUPPOSITION

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Abstract
A novel analysis of knowledge is offered. The idea is to use the logic of presupposition and replace the truth requirement with the non-falsity requirement in the tripartite definition of knowledge. This move can be used to explain the difference between outdated knowledge and mere superstition and to solve some problems about epistemic closure. In this regard, it is claimed that the present proposal improves upon Nozick's conditional theory of knowledge and Dretske's relevant alternatives approach and avoids disadvantages of antirealism. Some applications are mentioned e.g. to elucidating Wittgenstein's and Wiśniewski's anti-skeptical strategies, or to removing circularities from reliabilism. Finally, further possible developments that employ the concepts of Wiśniewski's theory of erotetic arguments are indicated.

1. *Some problems concerning the relation of truth and knowledge*

One philosophical dogma is that truth is indispensable for knowledge. That is, if one knows that p, then p is true. The dogma is hardly reconcilable with a popular use of 'knowledge' in utterances of the kind "according to the knowledge of the (past) day", e.g. "according to the ancient state of knowledge, heavy bodies fall down". Using such phrases we imply that the knowledge in question is outdated and the scientists of the past, in our view, have been wrong. We consider their knowledge inferior to ours or simply false. Are we to say that their knowledge does not deserve its name? The word 'knowledge' in such contexts has its clear function, though. Using it, we imply that we do not talk about fantasies, or blind guesses, or delusions, or mere errors. We confer thereby a high epistemic status to outdated beliefs. As Ryszard Wójcicki once put it, ancient scientists clearly knew something when they maintained that heavy bodies fall down. They expressed their knowledge improperly, however.

Obviously, not all beliefs of the past deserve such a high epistemic status. E.g., we resist to confer it to the superstitions about witches. The emerging difference in the epistemic value of past falsehoods is by no means the only reason for undertaking an analysis aiming at divorcing the concepts of truth and knowledge. Much of what we consider knowledge today will probably turn out to be false in the future. It would be awkward to say that this part of our knowledge is only would-be knowledge rather than genuine knowledge. If we chose so, we would have to accept that nobody would ever know what we really knew. The very concept of knowledge would become useless.

Another marital problem of the concepts of truth and knowledge is connected to the principle of closure. It says that if one knows that p and at the same time knows that if p then q, then one knows that q. Symbolically:

$$\{\mathrm{K}_a p \wedge \mathrm{K}_a(p \rightarrow q)\} \rightarrow \mathrm{K}_a q$$

The principle seems intuitively obvious. In the contemporary version of the story of the Cartesian demon, however, if we accept the principle of closure we cannot know most of what we think we know. Assume that q says: "I am not a brain in a vat filled with a nutrient liquid, which is plugged to a sophisticated apparatus by a crazy scientist who makes me, with this apparatus, to have sensations so convincing as those one can have from stimuli coming from the real world." Sensations, then, cannot help me to decide whether I am not a brain in a vat. Consequently, I do not know that q. Assume, next, that p says: "I am writing these words at my word processor now." If I am writing these words at my word processor, I am not a brain in a vat. For if I were a brain in a vat, I would be only under an illusion that I am writing these words at my word processor while in reality I would be bathing in the nutrient. In other words, I know that if I am writing these words at my word processor, I am not a brain in a vat. If I knew, in addition, that I am writing these words at my word processor then, on the principle of closure, I would know thereby that I am not a brain in a vat. I cannot know this, however. Consequently, I do not know that I am writing these words at my word processor. By the same token I do not know many things I may think I know.

2. *A review of few influential replies to the skeptic*

2.1. *Nozick's conditional theory of knowledge*

There are many attempts to resist this contemporary skeptical argument. An important example is Nozick's conditional theory of knowledge. On this

theory, a knows that p if and only if (i) a believes that p, (ii) a is justified in believing that p, (iii) p is true, (iv) if p in changed conditions were true, a would still believe that p but if p in changed conditions were false, a would not believe that p. The semantics of counterfactuals is of key importance here. The conditional theory of knowledge assumes a version of possible worlds semantics. Consider a space of possible worlds and a metrics over this space, which is intended to be a measure of similarity between the worlds. Then the sentence "if (counterfactually) p, then q" (symbolically: $p \hookrightarrow q$) is true if and only if $p \rightarrow q$ is true in each world in a neighbourhood of our world, that is, in each world that is closer (more similar) to ours than some particular world. Condition (iv) can be reformulated then as follows: (iv$'$) in each possible world in a certain neighbourhood of such a world in which a believes that p, and is justified in believing so, and p is true, a believes that p if and only if p is true. Now, suppose I believe I am writing these words at my word processor and I am justified in believing so and this belief is true. In any possible world in a certain neighborhood of my world, i.e., in a world that is similar enough to mine, I can easily decide whether I am writing these words at my word processor or am doing something else: playing chess, standing on my head, etc. A world in which I am a brain in a vat is too distant from mine in order for my beliefs there to be taken into account. Consequently, I know that I am writing these words at my word processor. At the same time I do not know that I am not a brain in a vat for if I were, I probably would not believe so.

Many philosophers are reluctant to accept the conditional theory of knowledge, for they are reluctant to accept the possible world semantics. Some question the very concept of a possible world because of its alleged doubtful ontological commitment. Personally, I consider this concept useful to many analyses, but I doubt in the selfconsistency of the idea of distance as a measure of similarity between worlds. Similarity is something extremely relative, and this relativity is easily made conspicuous when one recalls, e.g., quarrels about whether a child is more similar to the mother or the father. I do not think, therefore, that one can plausibly define a measure of similarity between things of any kind. In particular, I do not know why a world in which I am a brain in a vat is less similar to mine than a world in which I am snowboarding instead of writing these words at my word processor. Given my likes and dislikes, the latter possibility is much more incredible than the brains in a vat story.

2.2. *Dretske's relevant alternatives account*

For these reasons I consider the conditional theory of knowledge unsatisfactory. Another important attempt is Dretske's theory of relevant alternatives. On this theory, I know that p if I am in the position to exclude all the relevant

alternatives to p. I know, then, that I am writing these words at my word processor now, if I am in the position to exclude that I am snowboarding, playing chess, standing on my head, etc. To know this, I need not know that I am not a brain in a vat, because this alternative is not relevant. Why not? Precisely this question points to a weak point of Dretske's proposal: it does not give any clear hints about the criteria of which alternatives are relevant.

The theory of relevant alternatives, like the conditional theory of knowledge, rejects the principle of closure. I can know that I am writing these words at my word processor without knowing that I am not a brain in a vat. The principle of closure, however, is intuitively very plausible, and it is difficult to see the reasons why, the need of solving the problem of the science-fiction version of the Cartesian demon story apart, we have to reject it.

2.3. *Dummett's antirealism*

Another attempt is Dummett's antirealism. From its point of view, the sentences of the sort of "I am (or am not) a brain in a vat" have no conditions of correct assertibility. For it is presupposed that the state of affairs they apparently describe cannot be recognized. In Dummett's view, we cannot intelligibly say about such sentences that they are (unrecognizably) true or false. The very concept of verification-transcendent truth is unintelligible, for the antirealist. His argument is that we acquire our mother tongue by watching the verbal behavior of competent speakers of our linguistic community and learning thereby what the conditions of correct assertibility of sentences uttered in our presence are. Those conditions, by their very nature, cannot transcend our capacities of their recognition. The concept of truth is reduced then to the concept of correct assertibility. On this view, the sentence "I am not a brain in a vat" is neither true nor false, it is simply unintelligible. Hence it cannot express knowledge at all. In contrast, sentences like "I am writing these words at my word processor" have their correct assertibility conditions, they describe states of affairs that can be recognized. Consequently, such sentences are capable of expressing one's knowledge.

Antirealism, though it may seem so, does not need to reject the principle of closure. For it rejects not only the consequent of the principle, $\mathrm{K}_a q$ ("I know I am not a brain in a vat"), but also the second conjunct in the antecedent, $\mathrm{K}_a(p \rightarrow q)$ ("I know that if I am writing these words at my word processor then I am not a brain in a vat"). This is so, for if the consequent of the implication $p \rightarrow q$ has no correct assertibility conditions, the whole implication has none of them, either. Consequently, the implication itself cannot express knowledge at all.

Antirealism is not an attractive solution, though, for it blurs the difference between facts that are epistemically inaccessible and something that cannot

be fact at all. Dummett's favorite example to illustrate the antirealist thesis is the sentence "Jones was brave" about a Jones who lived a peaceful life and never was exposed to danger and died in peace. He had no opportunity to give any evidence for his bravery and will have no such opportunity in the future. For these reasons, the sentence "Jones was brave" is neither true nor false, it does not describe any recognizable state of affairs, there can be no truth-maker of this sentence. By the same token, the sentence "I am not a brain in a vat" is neither true nor false and therefore cannot express one's knowledge.

A similar argument, however, is applicable to sentences of the sort "Julius Cesar had a fever on the day he crossed the Rubikon". This sentence has no correct assertibility conditions, for there is no hope for getting any evidence to its favor or disfavor. According to the present state of our knowledge (let me point the reader's attention to the phrase "the present state of our knowledge" used here, which is the phrase under investigation), Julius Cesar did not differ from today's patients so much as to justify the claim that one cannot intelligibly maintain that the sentence in question describes a possible, though epistemically inaccessible, state of affairs. To make the latter intelligible, it is quite sufficient that stories of Julius Cesar's deeds are intelligible due to our knowledge about his membership to human race, which tells us that he is similar to us in many respects. Thus there is no reason why we should deny that the sentence "Julius Cesar had a fever on the day he crossed the Rubikon" is true or is false, even if its truth-value is beyond our powers of recognition.

This case is quite different from that of late Jones. For one cannot exclude the possibility that Jones was so unlike us that any hypothesis to the effect that he was brave or not is just meaningless in the way in which hypotheses about the bravery or non-bravery of my word processor is. Jones might have had a pathologically poor personality, similar to that of Chancey Gardener, the main character of Jerzy Kosiński's novel (*Being There*), and display a peculiar pattern of behavior which cannot be interpreted in terms of traits of character. Or Jones might have died soon after his birth and one may plausibly conjecture that the traits of character are normally being developed as one's experience grows. In the case of infant late Jones one can maintain then that not only no fact that could count as the truth-maker of the sentence under consideration can ever be discovered but also that no such fact can even exist. By contrast, in the case of Julius Cesar, the conjecture that his body had no temperature on that great date is incompatible with all our knowledge. Therefore I suggest, contrary to the antirealist, that drawing the distinction between epistemic inaccessibility of some facts and their nonexistence is not only intelligible but also epistemologically important and one must not ignore it.

2.4. *Antiantirealist conclusions about the intelligibility, justification and their dependence on prior beliefs*

What is, in the lights of the above distinction, the status of the sentence "I am (not) a brain in a vat?" On the one hand, the crazy scientist story is of a different nature than the hypothesis about the emperor's fever. Our present knowledge does not provide us with evidence to support the hypothesis that anybody could be able to bring the mischievous scenario into effect with techniques so similar to ours as to make the sentence "I am a brain in a vat" true. These considerations, I think, are in a way consonant with Hilary Putnam's reasons for rejecting this sentence as false or unintelligible. If this is right, I know that I am not a brain in a vat and the principle of closure is saved. On the other hand, the crazy scientist story captures our imagination precisely because we understand it on the basis of analogy, and we understand it, on the basis of analogy, as something that can be true. Therefore I find Putnam's argument unconvincing.

David Deutsch, who considers this question in a somewhat different framework, suggests that if we had been put into a virtual reality then we would have to have a chance to discover the manipulation on our senses. The crazy scientists' machinery could not be never-failing just as a *perpetuum mobile* or a perfect crime could not exist, and sooner or later we would encounter an opportunity to catch him in the act. This recent version of the story of the Cartesian demon relies then on the unreliable, in the lights of our knowledge, assumption about the possibility of perfect deception. Anyway, in Deutsch's version, the hypothesis that I am a brain in a vat is neither unintelligible due to the lack of its correct assertibility conditions nor *a priori* false, as Putnam has it. Instead, this hypothesis is testable and therefore true or false scientific hypothesis. Moreover, on the available evidence, the hypothesis can be rejected. Deutsch is ready to suggest then that we know *a posteriori* that we are not brains in a vat. Consequently, the principle of closure is saved again.

In my opinion, Deutsch's argument is somewhat hasty. To consider the hypothesis that we are placed in a virtual reality testable, we need to know something more about the hypothesized "real" reality in which our crazy scientist works. In particular, we need to know how to tell those inconsistencies in our experience that are the evidence to the disfavor of our hitherto accepted laws of nature from the ones that are to be taken as the evidence that the crazy scientists has failed in his attempt to create a perfect *simulacrum* of a nature that works according to eternal laws. Similarly, the inconsistencies in Chancey Gardener's behavior, depending on our psychological knowledge, can be construed either as the evidence of the instability or change in his personality or the evidence of his mental disorder. Any interpretation of evidence, i.e. justification of beliefs, depends on our previously accepted beliefs.

3. *A revision of the tripartite definition of knowledge*

In this connection one pressing question arises. Do those beliefs that are assumed in order to justify other beliefs, or in order to confer the status of knowledge to other beliefs, have to be knowledge themselves, or have to be justified themselves? I will proceed with such an analysis (or preliminaries to such an analysis) of knowledge that yields an answer to the negative. It is trivial that if any justification were to presuppose some justified beliefs then the regress of justifications would arise. Traditionally, *regressus* is avoided by assuming either foundationalism or coherentism. The former is implausible, for it requires to assume a nonpropositional kind of justification. The latter, other disadvantages apart, does not account for the fact that a system of knowledge does not emerge from the scratch as a ready-made system to be only developed and improved upon later. It does not take into account that new knowledge is gained owing the possession of some knowledge before, and in order for this process to start at all, the very beginning of knowledge cannot be knowledge. For reasons of space I cannot elaborate upon this programmatic remark. I think, however, that the solution I suggest in the foregoing retains most attractions of coherentism and, at the same time, saves the intuitions just expressed.

The main idea is as follows. Beliefs, or propositions that are their content, or sentences that express them, invariably presuppose some presuppositions, in the technical sense of the word. That is, p presupposes q, symbolically, $p \succ q$, if and only if p is true, then q is true and if p is false, then q again is true. In other words, q is a condition of p's having a truth-value. When I am a brain in a vat, the sentence "I am writing these words at my word processor" is neither true nor false. For if it were false, its negation, "I am not writing these words at my word processor" would be true. The latter would be true, if I did something else instead of writing these words at my word processor: playing chess, lying on the sofa or snowboarding or the like. If I am a brain in a vat, however, nothing of the sort is possible. No sentence that says that I am doing something that people sometimes do in the real world can be true in the circumstances in which I am a brain in a vat rather than a human in the real world. By the same token, no such sentence is false. Just as sentences like "my word processor is writing these words" or "my word processor is snowboarding" are neither true nor false. To make a long story short, the sentence "I am writing these words at my word processor" presupposes the presupposition to the effect that I am not a brain in a vat but a human creature made of flesh and blood. It follows, then, that the skeptic argument under consideration only apparently conforms to the principle of closure. This is so because in his argument it is the sign of the presupposition relation that connects the sentences "I am writing these words at my word processor" and "I am not a brain in a vat" rather than the sign of implication relation, as it

may seem:

$$\{\mathrm{K}_a p \wedge \mathrm{K}_a(p \succ q)\} \rightarrow \mathrm{K}_a q$$

Now, the question arises whether the skeptic argument so analyzed is valid. It may seem so. For if I know that I am writing these words at my word processor and I know that the sentence "I am writing these words at my word processor" presupposes that I am not a brain in a vat, then

(1) It is true that I am writing these words at my word processor.
(2) It is true that "I am writing these words at my word processor" presupposes that I am not a brain in a vat.
(3) On (1) and (2), it is true that I am not a brain in a vat.
(4) I am justified in believing that I am writing these words at my word processor, and I believe so.
(5) I am justified in believing that "I am writing these words at my word processor" presupposes that I am not a brain in a vat.
(6) On (4) and (5), I am justified in believing that I am not a brain in a vat.
(7) Assuming some competence in logic on my part, accepting (4) and (5) I believe that I am not a brain in a vat.
(8) On (3), (6), (7) and the tripartite definition of knowledge I know that I am not a brain in a vat.
(9) I do not know that I am not a brain in a vat.
(10) On (1)–(9), the tripartite definition of knowledge and the contraposed, modified principle of closure, I do not know that I am writing these words at my word processor.

To rebut the sceptical argument, I suggest that we reject (1). To make this suggestion plausible, I offer a modification of the tripartite definition of knowledge, which consists in relaxing the truth requirement:

DF a knows that p (symbolically, $\mathrm{K}_a p$) iff
(1) a believes that p (symbolically, $\mathrm{B}_a p$);
(2) a is justified in believing that p (symbolically, $\mathrm{JB}_a p$);
(3) p is not false.

Note that the condition (3) of the above definition is satisfied not only when p is true, but also when p presupposes a presupposition that is not true. On the definition on offer, I may know that I am writing these words at my word processor and, at the same time, not know that I am not a brain in a vat. In order for me to know that I am writing these words at my word processor, it is sufficient that I justifiably believe that I am writing these words at my word processor and that this belief is not false. And it is sufficient for this

that I am in the position to exclude that I am playing chess, lying on the sofa, snowboarding etc. and that no alternative belief is true. There is no need to require that I am not a brain in a vat or even that I am justified in believing that I am not. To make a long story short, in some peculiar situations, I may know that I am writing these words at my word processor even if this is not true. In such peculiar situations, knowledge is nothing more than justified belief. But only in such peculiar situations: a false belief is not knowledge even if it is justified.

Replacing classical logic with the logic of presuppositions may seem a somewhat artificial move. Its plausibility depends on what its consequences are. Let us consider some of them.

4. *Improving upon the previously discussed replies to the skeptic*

4.1. *Providing a measure of similarity for the conditional theory of knowledge*

One weakness of Nozick's theory is the absence of a satisfactory explication of the concept of distance as a measure of similarity between possible worlds. If we replace, however, the clause

$p \hookrightarrow q$ is true if and only if $p \rightarrow q$ is true in each possible world in a neighbourhood of our world

with

$p \hookrightarrow q$ is true if and only if $p \rightarrow q$ is true in each possible world in which the presuppositions of both p and q are true

then the troubles with the concepts of distance and similarity disappear while the advantages of the conditional theory of knowledge remain. According to the presuppositional semantics of counterfactuals, I know that I am writing these words at my word processor if in each possible world in which some presuppositions are true, I believe so, and I am justified in believing so if and only if this belief is true. The presuppositions in question are the presuppositions of the sentences that ascribe truth or falsity to the sentence "I am writing these words at my word processor" (they are the same presuppositions as those of the sentence "I am writing these words at my word processor" itself). It follows then that I know that I am writing these words at my word processor whenever I am justified in believing so and my justification is indefeasible as long as the presuppositions in question are true. I.e., my justification fails only when those presuppositions are not true. In such

circumstances, the belief in question is neither true nor false. Still, such a belief qualifies as knowledge if only it is justified. Consequently, I know that I am writing these words at my word processor if I am justified in believing so and my justification is indefeasible as long as I am not a brain in a vat and possibly some other tacit presuppositions are true. I know this even when I am in fact a brain in a vat. As a result, we have arrived at the conclusions one is able to draw using the conditional theory of knowledge, and we have done this evading the question of which world is more similar to the world in which I am in fact writing these words at my word processor: the one in which I am a brain in a vat who seems to be writing these words at my word processor or the one in which I am in fact snowboarding now. (Personally, I am inclined to the latter option).

4.2. *Defining the concept of relevance for the relevant alternatives approach*

Assuming the logic of presuppositions, relevant alternatives are those that presuppose the same presuppositions. Thus a relevant alternative to "I am writing these words at my word processor" is any sentence that says that I am doing something that I cannot do writing these words at my word processor, but can do anyway. "Can" is meant here in a sense relative to the presuppositions in question. That is, "is possible that p" is true iff p is true in a possible world in which those presuppositions are true (in particular, in a world in which I am not a brain in a vat).

4.3. *Going beyond the antirealist restrictions on intelligibility*

For the antirealist, if I cannot know whether I am or am not a brain in a vat, there is no real difference between the two. In other words, what one cannot know, one cannot intelligibly talk about. One cannot even intelligibly say that there is something one can never know. On the present proposal, presuppositions of knowledge, including that that I am not a brain in a vat, though intelligible, don't need to qualify as knowledge. It is even possible that some of them cannot qualify as knowledge. In particular, it is perfectly possible that it is impossible for one to know whether one is or is not a brain in a vat and this does not prevent us from having a vast body of knowledge.

The antirealist fights skepticism claiming that the skeptical hypothesis is unintelligible. This he takes an only option, assuming the impossibility of proving the skeptical hypothesis false. The logic of presuppositions provides us with another option that enables us to avoid the shortcomings of antirealism (cf. Sec. 2.3).

5. *Few other possible applications of the present view*

5.1. *Accounting for how justification depends on previous knowledge or assumptions*

On the classical approach, justification is something which, added to a true belief, makes it knowledge. This way, justification is conceived as something prior to knowledge, a knowledge-maker. On the other hand, as I suggested at the end of Sec. 2, whether a piece of evidence is a piece evidence or not, depends on the state of knowledge. In particular, the evidence for my writing these words at my word processor counts as the evidence for this only when it is not true that I know that I am a brain in a vat. More precisely: when I assume that I am a human made of flesh and blood.

5.2. *Accounting for how knowledge may arise from something that is not knowledge*

Without accounting for this, we would have to either assume that any knowledge is always a modification or extension of some previous knowledge, or accept coherentism. The former would lead to *regressus* or foundationalism, the latter would commit us to the view that knowledge first emerges as a ready-made system, like a *deus ex machina*, and only later evolves. This dilemma was already suggested at the beginning of Sec. 3. The present proposal avoids it as a species of the default-and-challenge account of knowledge and justification. This account can be derived from the ideas of Peirce and Popper. According to the latter, knowledge is being developed through criticism of successively proposed hypotheses. Criticism is possible owing to background knowledge, i.e., a body of theories that are temporarily immunized against criticism. This immunization is only temporal, for no dogma deserves the name of knowledge. One weakness of Popper's account is his understatement concerning the conditions for a revision of background knowledge, i.e. for making some of its parts vulnerable to criticism. On the present proposal, the role of background knowledge is taken over by the default that consists of the presuppositions of knowledge. They are not included to knowledge, often remain only implicit, but they function as tacit assumptions for justifications of distinct pieces of knowledge. That I am a human made from flesh and blood in the real world rather than a brain in a vat is presupposed in my knowledge that I am writing these words at my word processor as well as in all scientific knowledge.

5.3. *Rationalisation of Humean naturalism*

For the Humean naturalist, some "natural beliefs" can perform the role of the starting point of inductions. Although they have no epistemic justification, they can perform this role because they are nonepistemically since they are natural. On the present proposal, the same role is granted to the presuppositions of knowledge. The latter do not require any justification, epistemic or otherwise. Thus the troublesome questions of why some beliefs are natural or which beliefs are natural are eschewed.

5.4. *Deeper understanding of Wittgenstein on Moore*

Moore's antisceptical argument: "I know that this is my hand and hence I know that there is at least one external object and hence the external world exists" has been rejected by Wittgenstein who said: "we should not understand him if he were to say 'Of course, I may be wrong about this"' [Wittgenstein, 32]. If I cannot be wrong in believing that this is my hand, I can never be persuaded that this belief is correct and hence I can never learn this or come to know this. Beliefs like these do not qualify as knowledge but "it is an inherited background against which I distinguish between true and false" [94] and thereby I can acquire knowledge. "How do I *know* that this is my hand? ... When I say 'how do I know?' I do not mean that I have the least doubt about this. What we have here is a foundation for all my action. But it seems to me that it is wrongly expressed by the words 'I know"' [414].

On the present proposal, the beliefs that Wittgenstein includes to "an inherited background" are the presuppositions of knowledge. This is why it is correct to say that they are not a part of our knowledge. Wittgenstein suggests [446, 497] that such background beliefs form the foundations of a language game, the language game that lends the word "know" its meaning. This is precisely how the presuppositions of knowledge function. The analysis in terms of presuppositions, however, as a reply to the skeptic, is more convincing than the Wittgensteinian formula on which doubt as well as knowledge are possible only within a language game. The latter may encourage the postmodern relativist who is inclined to consider all the language games equally valid and therefore to maintain that any language game can legitimately be replaced with another one. By contrast, if one accepts that epistemic language games are defined in terms of presuppositions, to resist the suggestion that language games are chosen as a matter of caprice of culture, one has only to establish that presuppositions are, as a rule, changed in response to epistemic needs. If this is correct, the presupposition to the effect that I am not a brain in a vat could be revised only if we caught the crazy scientist at a failure: an element of truth in the aforementioned Deutsch's approach.

The default-and-challenge account of knowledge permits then to avoid skepticism or relativism without seeking a Cartesian starting point or its inadequate substitute of Moore's kind. On the present proposal, the question of how the initial presuppositions were or might have been established does not even arise. Wittgenstein, unlike his postmodern commentators, seems to be close to the default-and-challenge account when he writes: "Certain events would put me into a position in which I could go on with the old language-game any further. In which I was torn away from the sureness of the game" [617]. And "At the foundation of well-founded belief lies belief that is not founded" [253], the latter being the source of tentative certainty. One may risk a guess that a change of what is certain consists in a change of "foundational unfounded beliefs" that I suggest to call the presuppositions of knowledge. "The mythology may change back into a state of flux, the river-bed of thoughts may shift" [97]. Some presuppositions may remain, if nothing will ever force us to change a game. "I am not a brain in a vat" is possibly such a presupposition.

5.5. *A variation of Wiśniewski's anti-skeptical idea*

Andrzej Wiśniewski once offered an anti-skeptical move that explores a line of thought similar, in some respects, to that of the default-and-challenge account. In his proposal, an argument is correct as far as it relies on the assumptions that are considered valid relative to some standards of validity. The standards in question are not among the premises of an argument, which permits to avoid *regressus ad infinitum*. An argument that is correct against one set of standards may be incorrect against another set of standards. The question of validity of standards themselves is, however, of another order than that of correctness of an argument. The former is put on a meta-level. Apparently, the *regressus* in the justification of standards arises. Such a regress is innocent, as it can be stopped at any stage without any harm for tackling the question of the correctness of arguments on the lower levels of discourse.

The standards Wiśniewski talks about need not be justified in order to be the basis of justification, just as Wittgenstein's unfounded beliefs or the presupposition of knowledge in the present proposal. Now, the standards under consideration are liable to revision in the lights of standards of higher order. This makes a difference, for presuppositions (just as Wittgenstein's unfounded beliefs), although liable to revision as well, do not belong to a meta-level. The logic of presuppositions, unlike the classical logic, does not require the distinction between the object language and the meta-language for avoiding semantic paradoxes. This difference, however, as I see it, has no important epistemological consequences.

5.6. *Removing the air of circularity from reliabilism*

For the reliabilist, a belief qualifies as knowledge if it is acquired with a reliable method. Now, a method is reliable if the ratio of true beliefs it produces is high. How can one know of a belief, however, that it is true? It seems that one cannot know this without knowing that the belief in question is acquired with a reliable method. Now, one can know that a method is reliable only when one knows something about the truth-value of beliefs acquired with that method. One can hardly resist an impression of circularity here.

On the present proposal, combined with reliabilism, the assumption that the method we use at present is reliable can be taken as a presupposition of knowledge: a condition on which the beliefs arrived at by the method have a definite truth-value. Alternatively, to use the previously discussed Wiśniewski's idea, the assumption that the method in question is reliable amounts to accepting a certain standard of validity. In both formulations the reliability of the method in use is assumed by default and this assumption is open to challenge.

6. *Possible further developments: relating knowledge to problem-solving - prospects for an application of erotetic logic*

Relaxing the truth requirement of the tripartite definition of knowledge may not be a sufficient move towards a satisfactory analysis of the concept. In particular, it seems reasonable to leave room for the distinction between knowledge and reliable (and even true) information. One plausible intuition is that knowledge acquisition is more tightly related to problem-solving activities than to information acquisition. This is so, for information is sometimes acquired willy-nilly, without any intention to solve a problem. Moreover, when such an intention is present, it is always required to *know* what kind of information is helpful. A detailed analysis of the relation between knowledge and problem solving has to be postponed to some other occasion. My intuition is that Wiśniewski's [1996] concept of erotetic argument can be applied to this task. My tentative suggestion, to be elaborated in the future, is that knowledge consists of justified direct answers to questions arrived at by a valid erotetic argument. In the present context it is important to note that (assuming the concept of justification in a sense no weaker than that of the relevant alternatives approach) such an answer has to be true only when the question under consideration is sound (i.e. has a true direct answer). The answer that counts as knowledge doesn't need to be true when not all the declarative premises of the relevant erotetic argument are true. Those premises themselves don't need to count as knowledge, for they may

not be obtained as answers to questions arrived at by a valid erotetic argument. In particular, in the case of the so-called erotetic argument of the first kind [*ibid.*], such premises entail the presuppositions of the question under consideration. Those presuppositions are precisely the presuppositions of the direct answers to this question, including the answer that, on the present account, is considered to be knowledge.

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