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## 6. The Logical Positivists on the Self

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### 1. Introduction

Simon Blackburn starts his introduction to philosophy *Think* with a line: “We might say: it all began on 10 November 1619.” (Blackburn 1999: 15) On that date Descartes allegedly had a vision and started writing his philosophical system. However, logical positivists did not share Blackburn’s enthusiasm about Descartes’ philosophy. Moritz Schlick was clear about it. Talking about *Cogito* as a candidate for the foundation of the whole human knowledge, Schlick said that: “Such a statement, which does not express anything itself, cannot in any sense serve as the basis of anything.” (Schlick 1934: 218) He argued that it was a mere pseudostatement. Hans Reichenbach believed that *Cogito* “is one of the landmarks on the blind alley of traditional philosophy.” (Reichenbach 1938: 261). No other philosophical movement ever criticized Descartes’ *Cogito* so fiercely as logical positivists did. They criticized it on every occasion they could. (Schlick 1918: 85, 161; Carnap 1928: 261; Carnap 1932: 74; Schlick 1934: 218; Ayer 1936: 62, 187; Weinberg 1936: 184; Schlick 1936: 166; 184; Reichenbach 1938: 261; Von Mises 1939: 173; Reichenbach 1951: 35) This is understandable because they were radical empiricists. They firmly believed that no factual knowledge can be obtained *a priori*, by reason alone, and Descartes’ *Cogito* was seen as a raw model of rationalistic philosophy, perhaps of philosophy in general. They all quoted 18<sup>th</sup> century German scientist and aphorist Georg Lichtenberg who said “*It thinks*, we should say, just as one says, *it lightens*. To say *cogito* is already too much, if we translate it as *I think*.” (Lichtenberg 2012: 152; K 76) Although Lichtenberg was well known in the German speaking world, some authors believe that positivists quoted Lichtenberg because Ernst Mach did it in *The Analysis of Sensations*. (Mach 1886: 29; Blackmore 1972: 35; Williams 1978: 95) This is probably true because Mach really did have immense influence on the positivists. Since 1928. members of the Vienna Circle were institutionally organized in the *Verein Ernst Mach* (*Ernst Mach Society*).<sup>1</sup>

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<sup>1</sup> I presented views of the logical positivists in *Filozofija Bečkog kruga* (*Philosophy of the Vienna Circle*) from 2002. This article is partly based on Chapter IX of the book.

## 2. Descartes' *Cogito*

There are four main ways to understand Descartes' *Cogito*.

(1) We can understand it as a sentence that expresses simple *awareness of our own existence*. This awareness is nonconceptual and noninferential. As soon as we think, we are aware that we think. And as soon as we are aware that we think, we are aware that we exist. According to this understanding, the awareness of our own existence is contained in the very act of thinking. One might say that this understanding is in the spirit of the movement of Phenomenology. However, this understanding of the *Cogito* is not very plausible. In Descartes' writings one cannot find sufficient support for it. It seems that this is not what Descartes had in mind.

(2) We can understand *Cogito* as a necessarily true *proposition* whose truth we grasp *a priori* by the insight of the reason. "One cannot think unless one exists." or "One who thinks has to exist." really seem like a good candidate for the *a priori* truth of reason. Also, there is a textual evidence for this interpretation. In *The Principles* Descartes talks about the eternal truths and says:

We now come to speak of eternal truths. ... an eternal truth having its seat in our mind, and is called a common notion or axiom. Of this class are the following: It is impossible the same thing can at once be and not be; what is done cannot be undone; *he who thinks must exist while he thinks* [italics mine]; and innumerable others, the whole of which it is indeed difficult to enumerate, but this is not necessary, since, if blinded by no prejudices, we cannot fail to know them when the occasion of thinking them occurs. (Descartes 1644: XLIX)

However, in *Cogito* Descartes does not claim a general proposition that *whoever* thinks has to exist. He claims that *he* exists.

(3) Therefore, it is more plausible to understand *Cogito* as an *inference*. After all, it contains "therefore" and this indicates that it expresses an inference, not a single proposition. From the fact that he thinks Descartes *infers* that he exists. The proposition "he who thinks must exist while he thinks" should be taken as a hidden premise in the inference, not as a whole content of the *Cogito*. So, according to this interpretation, *Cogito* expresses the following inference:

P1: He who thinks must exist while he thinks.

P2: I think.

C: Therefore, I am.

This is certainly a sober interpretation that grasps well Descartes' intentions. However, it seems that the inference is more complicated and that it contains more hidden premises, in fact, a whole ontological theory. This

theory might be called *the S-A ontology*. The idea is that whatever exists is either a substance or an attribute. A substance is something that can exist on its own, something that does not need anything else for its existence. On the other hand, an attribute can exist only as an attribute of something distinct from itself, that is, as an attribute of a substance. Every substance has one essential attribute. The S-A ontology has a corresponding epistemology. Its central tenet is that we can be acquainted with a substance only through its attributes, we cannot be directly acquainted with a substance. And this is crucial in the discussion about *Cogito*. The picture is that once we are acquainted with the attributes, we *infer* the existence of an underlying substance to which these attributes belong. In *Principles* Descartes says:

But yet substance cannot be first discovered merely from its being a thing which exists independently, for existence by itself is not observed by us. We easily, however, discover substance itself from any attribute of it, by this common notion, that of nothing there are no attributes, properties, or qualities: for, from perceiving that some attribute is present, we *infer* [italics mine] that some existing thing or substance to which it may be attributed is also of necessity present. (Descartes 1644: LII)

According to this interpretation, *Cogito* is an inference with several hidden premises of ontological nature: that thinking is an attribute and that an attribute has to belong to a substance. So, according to this picture, *Cogito* has to be reconstructed as follows:

- 1) There is thinking.
- 2) Whatever exists is either a substance or an attribute.
- 3) Thinking is an attribute.
- 4) Attribute must belong to a substance.
- 5) Therefore, there must be an Ego to which thinking belongs.<sup>2</sup>

The central characteristic of this picture is that *Ego* is not something that is directly observed but rather an *inferred entity*. Awareness of one's own existence is not an immediately given fact but rather a *product of theoretical reasoning*. In my opinion, this is the correct and full reconstruction of the *Cogito*. In the rest of the paper we will partly rely on this analysis.

(4) We can understand *Cogito* as a *performance*, that is, an utterance that is made true by the very act of uttering it.<sup>3</sup> *Cogito* is necessarily true in the sense that as soon as somebody says that he exists, it has to be true, it simply cannot be false. According to this understanding, *Cogito* is a nec-

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<sup>2</sup> It is interesting to notice that this reconstruction of the argument does not start with "I think" but rather with the impersonal "There is thinking."

<sup>3</sup> Jaako Hintikka examines this interpretation in "*Cogito, Ergo Sum: Inference or Performance*" from 1962.

essary truth just like “I am here now.” has to be true, no matter who, when and where says it. “I exist.” is self-verifying, just as “I do not exist.” is self-refuting. Nevertheless, although there certainly is an air of performativity in the *Cogito*, we cannot say that this is what Descartes had in mind. His writings do not support this interpretation. In the exposition of *Cogito*, Descartes puts stress on other things, not on its self-verifying character.

### 3. The Logical Positivists on the *Cogito*

#### 3.1. Moritz Schlick: *Cogito* is a Stipulation

In the *General Theory of Knowledge* from 1918, in §12 *What Knowledge is Not*, Moritz Schlick argued that *Cogito* is not a statement (that can be true or false) but rather a stipulation, or a concealed definition:

Certainly the judgment “*cogito, ergo sum*” (after all necessary corrections are made) does express an incontrovertible truth, namely, that content of consciousness exist. But we saw some time back that not every truth need be knowledge; truth is the broader concept, knowledge the narrower one. Truth is uniqueness of designation, and uniqueness can be obtained not only through knowledge, but also through definition. And this is the case here. Descartes’ thesis is a *concealed definition* [italics mine]; it is an improper definition of the concept *existence* - what is earlier called a “concrete definition.” What we have is simply a stipulation that experience, or the being of contents of consciousness, is to be designed by the words “*ergo sum*” or “the contents of consciousness exist.” (Schlick 1918: 85)

To understand *Cogito* as a stipulative definition might seem like an interesting idea but obviously it cannot serve Descartes’ purposes. To serve the purpose of the Archimedean point of knowledge, *Cogito* cannot be a stipulative definition true by *fiat*, it has to be understood as a statement that expresses its objective truth makers. It is doubtful that in *Cogito* Descartes introduces and defines the concept of existence. It rather seems that he has previous and independent understanding of that concept and that he applies it in the *Cogito*. Generally, it is a very interesting question of how much one has to know to come to the *Cogito*. Obviously, one has to have a mastery of some concepts and principles of thought. It would be unfair to argue that Descartes introduced the concept of existence in *Cogito*. In *Principles*, paragraph X, he says what is needed to arrive to *Cogito*:

When I have said that this proposition, I THINK, THEREFORE I AM, is the first and most certain one encountered by anyone who conducts his thinking in an orderly manner, I have not, however, said that it was not necessary to know beforehand what thinking, certainty and existence are, and that in order to think one must be, and other such similar matters; but because these notions are so simple that, by themselves, they do not make us aware of anything that exists, I have not deemed it necessary to give an account of them here. (Descartes 1644: X)

*Tabula rasa* cannot arrive at *Cogito*. Remember, in Descartes' epistemology, the belief that I exist is not the first belief that we have, it is the first *justified* belief that we have. Nevertheless, Schlick has more to say about *Cogito*. In *General Theory of Knowledge*, §20, named *So-Called Inner Perception*, he says:

The *Cogito* of Descartes, as we remarked earlier, contains the trap of a distinction between a substantivist "I" and its activity, into which Descartes fell when he added: *ergo sum*. For as is easily seen, his *sum* means for him the existence of a substantial "I." Lichtenberg's very true observation that Descartes should have said "It thinks" instead of "I think", is not only an inspired remark but should really be made the supreme guiding principle of psychology. ... The stream of consciousness is simply an existing process; the "I" is the unified interconnection of this process, not a person who inspects and guides it. (Schlick 1918: 161)

As we saw earlier, Descartes believed that the inference from "there is thinking" to "there is somebody who thinks" is assured by the *common notion* or *axiom* of the S-A ontology. The relevant common notion is that "from perceiving that some attribute is present, we infer that some existing thing or substance to which it may be attributed is also of necessity present." (*Principles*, LII) On the other hand, as we can see from this quotation, Schlick, together with Lichtenberg and others, believed that this inference is nothing but a *logical fallacy* of substantivisation (or hypostatization, or reification). Now, what we have here, an axiom of reason or a logical fallacy?

Schlick's argument can be seen as an instance of a wider philosophical discussion: the empiricist critique of the rationalist conception of substance. Empiricists are proponents of the *bundle theory of substance*, where a substance is seen simply as a bundle of properties without any underlying substratum to which these properties are supposed to be attached. Rationalists, on the other hand, accept the *substratum theory of substance* and argue that every substance is composed of properties and a substratum to which these properties belong. For empiricists a thing is nothing but a bundle of properties, while for rationalists a thing is a bundle of properties attached to their carrier, that is, to a substratum. In the case of the *Cogito* argument, Cartesian *Ego* is the substratum. Schlick, as empiricists, rejects the idea of an underlying occult entity and, as we saw, argues that "I" is nothing but "the unified interconnection ... of the stream of the consciousness." (Schlick 1918: 161) There is no underlying entity to which this stream belongs, there is no homunculus "who inspects and guides it." Roughly speaking, Schlick defends a *bundle theory of the self*.<sup>4</sup> Though, we

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<sup>4</sup> I say "roughly" because Schlick argues that Hume's bundle theory cannot account for

have to note here that Cartesian S-A ontology with its substratum theory of substance is not the only ontological framework in which we can infer “there is somebody who thinks” from “there is thinking.” After all, Schlick in the very same paragraph explains what “I” stands for. Within the framework of the bundle theory of substance one can also infer that “there is somebody who thinks” from “there is thinking.” The only thing that is needed is a plausible assumption that properties always come in bundles. In the case of *Cogito* this assumption amounts to the claim that psychological processes always take place in the corresponding bundles, that is, in the human selves. It seems that Lichtenberg simply went too far here. To eliminate occult Cartesian *Ego* from the ontology is one thing, but to claim that thinking can occur without a person who thinks is another thing. The first claim is plausible, the second one is not. Cartesian inferences might be valid without his ontology. We can say “I think” and “I am” without commitment to substratum theory of substance and its occult entities.

### 3.2. Rudolf Carnap: *Cogito* is Meaningless because it cannot be Formulated in the Language of Logic

In “The Elimination of Metaphysics through Logical Analysis of Language,” a programmatic article from 1932, Rudolf Carnap eliminates Descartes’ *Cogito* as a metaphysical piece of nonsense, on par with Heidegger’s “Nothing nothings,” or Hegel’s “Pure Being and pure Nothing are, therefore, one and the same.” Carnap’s objections to *Cogito* here are not substantial, but rather formal. In his opinion, *Cogito* is ungrammatical and it cannot even be formulated in a decent language. Although the grammar of natural languages allow formulation of such a sentence, the logical grammar forbids it. Talking about *Cogito*, Carnap says:

We notice at once two essential logical mistakes. The first lies in the conclusion “I am.” The verb “to be” is undoubtedly meant in the sense of existence here; for a copula cannot be used without predicate; indeed, Descartes’ “I am” has always been interpreted in this sense. But in that case this sentence violates the above-mentioned logical rule that existence can be predicated only in conjunction with a predicate, not in conjunction with a name (subject, proper name). An existential statement does not have the form “a exists” (as in “I am”, i.e. “I exist”), but “there exists something of such and such a kind.” The second error lies in the transition from “I think” to “I exist.” If from the statement “ $P(a)$ ” (“ $a$  has the property  $P$ ”) an existential statement is to be deduced, then the latter can assert existence only with respect to the predicate  $P$ , not with respect to the subject  $a$  of the premise. What follows

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the *unity of consciousness*. (Schlick 1918: 123) Schlick dedicates a whole paragraph to that problem - §17 *The Unity of Consciousness*. I will not go deeper into this problem here.

from “I am European” is not “I exist”, but a “a European exists.” What follows from “I think” is not “I am” but “there exists something that thinks. (Carnap 1932: 74)

The first mistake that Carnap talks about is that the verb “to be” is used in two senses, as a copula and as a predicate. However, the argument runs, existence cannot be used as a predicate. In fact, this is old Kant’s critique of the ontological argument for the existence of God: existence cannot be a predicate. And Carnap mentions that on the same page. Though, we do talk about particular things that do or do not exist. We say that Kraljević Marko really existed or that Atlantis never existed.<sup>5</sup> And we do not have any problems understanding the meaning of these claims. The second mistake that Carnap talks about is that “I am” does not follow from “I think.” What follows from “I think.” is “There exists something that thinks.” As we saw, Descartes justified the inference from “I think.” to “I exist.” with the eternal truth (or common notion or axiom) that *he who thinks must exist while he thinks*. Would this be sufficient to infer “I am.” from “I think.”?

Here we have to have in mind that logical positivists took logic very seriously. At many places they argued that natural language is faulty in many ways, that it is imprecise and misleading. For them the idea of a perfect language seemed natural and fruitful. They believed that traditional philosophical problems are nothing but logical mistakes, and that careful logical analysis would solve them all. Moreover, they believed that traditional philosophical problems are pseudoproblems that cannot even be formulated within the framework of the ideal language of the contemporary logic. After all, Carnap believed that philosophy is nothing but a *logical syntax of the language of science*. For these reasons, logical positivists took very seriously this objection to *Cogito*. Now, assuming that *Cogito* really cannot be formulated in the language of the first order predicate logic, in principle we can react in two opposite ways. We can argue, as Carnap did, that the language of contemporary logic is the best language we have and that we should reject as illegitimate anything that cannot be formulated in it. Or, we can argue that *Cogito* is perfectly legitimate and meaningful, and that therefore there must be something wrong with the contemporary logic if something so simple and understandable like *Cogito* cannot be formulated in it. If contemporary logic cannot accommodate *Cogito*, so much worse for the contemporary logic. Here we can quote Wittgenstein’s comment from *Philosophical Investigations* on the relationship between the ideal and the actual language:<sup>6</sup>

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<sup>5</sup> Kraljeveć Marko is a heroic character from the medieval oral literature.

<sup>6</sup> Majda Trobok pointed this out to me.

We have got on to slippery ice where there is no friction and so in a certain sense the conditions are ideal, but also, just because of that, we are unable to walk. We want to walk: so we need friction. Back to the rough ground! (Wittgenstein 1953: §107)

### 3.3. Julius Rudolph Weinberg: *Cogito* is a Valid but Empty Inference

Julius Weinberg in his book *An Examination Of Logical Positivism* from 1936 accepts Carnap's argument and makes an interesting comment about it. Weinberg argues that *Cogito* can be interpreted as a valid inference, but under that interpretation it would be a tautology, deprived of any factual content and as such it could not serve Descartes' purposes.

"Something thinks" implies "something thinking exists." This, in logical symbolism, is  $\varphi u \cdot \supset \cdot (\exists x)\varphi x$ , which is a tautology. Tautologies assert no facts because, as has been shown above (Chapter II), they are entirely concerned with symbols. In this case  $\varphi u$  is one way of saying  $(\exists x)\varphi x$ . Nothing has been demonstrated about the world. On this hypothesis, the cogito is a deduction but it presents nothing new, and, moreover, does not demonstrate what Descartes attempted, i.e. that a simple, identical, substantial, and spiritual entity exists. The important thing to notice about this treatment of the cogito is the elimination of the first person from the proposition. The means of determining the sense of "I think" cannot be given, so that, in this form, the proposition is meaningless, whereas if it is changed to "something thinks", the deduction "a thinking thing exists" is evidently no new information. Consequently nothing metaphysical could be intuited or inferred from the proposition. (Weinberg 1936: 184)

Perhaps the most interesting part of Weinberg's comment is the claim that *Cogito*, if understood in the sense of "I think," is meaningless because "The means of determining the sense of 'I think.' cannot be given." Maybe this was Carnap's real motive, but, as we saw, this was not his claim. His claim was that "I am." does not follow from "I think.," not that we cannot determine the sense of "I think." Maybe I am going too far here but it seems that Weinberg's worry was partly extra-logical. The claim that *Cogito* cannot be formulated in the language of the contemporary logic is one thing, while the claim that we do not really understand what it means is another.

### 3.4 Alfred Jules Ayer: "I exist" does not follow from "There is a thought now"

*Language, Truth and Logic* from 1936 is regarded as a book that brought logical positivism into the Anglo-Saxon world. Ayer opens Chapter 2 *THE FUNCTION OF PHILOSOPHY* with the claim that one of the superstitions about philosophy is that "the business of philosophy is to construct a deductive system." (Ayer 1936: 62) The paradigmatic case of such a system is Descartes' philosophy. Here is what Ayer says about it:



What he was really trying to do was to base all our knowledge on propositions which it would be self-contradictory to deny. He thought he had found such a proposition in "*cogito*", which must not here be understood in its ordinary sense of "I think", but rather as meaning "there is a thought now." In fact he was wrong, because "*non cogito*" would be self-contradictory only if it negated itself: and this no significant proposition can do. But even if it were true that such a proposition as "there is a thought now" was logically certain, it still would not serve Descartes's purpose. For if "*cogito*" is taken in this sense, his initial principle, "*cogito ergo sum*", is false. "I exist" does not follow from "there is a thought now." The fact that a thought occurs at a given moment does not entail that any other thought has occurred at any other moment, still less that there has occurred a series of thoughts sufficient to constitute a single self. (Ayer 1936: 62, 63)

Ayer has two arguments here. The first one is that *Cogito*, understood as "There is a thought now," is not necessary. The second one is that "I exist." does not follow from "There is a thought now." Let's focus on the first argument. Of course, it is questionable whether the first part of the *Cogito* should and could be understood as "There is a thought now." instead of "I think." Though, we have to say that Ayer is benevolent here, he looks for the formulation that might serve Descartes' purposes, that is, the formulation that would be impossible to deny. Ayer's point is that, contrary to Descartes' views, "There is a thought now." can be denied without contradiction. "There is no thought now." is not a contradiction, just like "There is a thought now." is not a tautology. It is simply a contingent matter whether there exists a thought now or not. On the one hand, this analysis is correct, it really is a contingent matter whether there are any thoughts at this moment. A universe without thoughts is not a contradiction. It is a consistent idea. But on the other hand, as we saw at the beginning of this article, there is an air of self-verifying performance in the *Cogito*. If at this moment somebody would think a thought "There is a thought now." his thought would be necessarily true. The very act of thinking it would make it true. The situation is analogous to the following one. If the sentence "Something is written on this wall!" is written on this wall, then it is self-verifying and necessarily true. If it is uttered by someone who points to the wall, then it is contingently true or false, depending on whether something is written on the wall or not.<sup>7</sup> So, although performative character of the *Cogito* was not in the focus of the Descartes' argumentation, there is a sense in which "There is a thought now!" is necessarily true. The second Ayer's argument is that "I exist." does not follow from "There is a thought now." Ayer believes that we are dealing with a *non sequitur* here because "a series of thoughts" is needed to constitute a self and we have only a single thought. For Des-

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<sup>7</sup> This is the difference between the semantic and the pragmatic paradox.

cartes a single thought is sufficient to get the *Cogito* off the ground. A single thought, in conjunction with the axiom that “He who thinks must exist while he thinks,” entails that there is somebody who thinks. Also, under the assumption of S-A ontology, the occurrence of a single thought entails that there is somebody who thinks. If I add the premise that I can think only my own thoughts (not thoughts of other people), I have a right to infer that I think. Of course, Ayer does not rely on the Descartes’ axiom, nor on the S-A ontology. He accepts a kind of the bundle theory of the self and for him a single thought is not sufficient to infer that he exists. He needs a whole series.

#### 4) What is the Self?

In the previous chapter we presented a critique of *Cogito*. That was a negative part of the positivists’ views about the self. However, they had a very interesting and quite elaborated positive part as well. They tried to say what self is.

##### 4.1. Rudolf Carnap: The Self is the Class of Elementary Experiences

In the *Aufbau* Carnap defined self in §163 *The Problems of the Self*:<sup>8</sup>

*The “self” is the class of elementary experiences.* It is frequently and justly emphasized that the self is not a bundle of representations, or experiences but a unit. This is not in opposition to our thesis, for (as we have shown in §37 and have emphasized repeatedly) a class is not a collection, or the sum, or a bundle of its elements, but a unified expression for that which the elements have in common. (Carnap 1928: 260)

Carnap was well aware of the old objection to the bundle theory of the self. It is not sufficient to say that we are a bundle of experiences. A satisfactory analysis of the self has to grasp the fact that our experiences have a kind of unity. Carnap argued that the concept of a class is the right concept for this task because a class is a “unified expression for that which the elements have in common.” But it is questionable whether a concept of a class can really provide a kind of unity that is needed here. Take for instance a class of people taller than 1.80m. The only thing that they have in common is the fact that they are taller than 1.80m. They do not have a kind of unity we believe our experiences have. In the same way, the only thing that elements of the class of elementary experiences have in common is the fact that they are elementary experiences. And this fact alone certainly cannot provide the kind of unity that we are looking for here. The fact that they are elementary experiences cannot tell us that they stand in different relations;

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<sup>8</sup> In the German original Carnap talks about *das “Ich.”*

that they have spatial and temporal order, causal order, that they can be used in explanations or inferences, that they have characteristics of a functional unity, etc.<sup>9</sup> So, it seems that the concept of a class, by itself, cannot provide a unity of consciousness. Nevertheless, let's take a further look at the Carnap's proposal. Carnap defines class in §33. *Classes*. He says:

The extension of a propositional function with only one argument position, i.e., the extension of a property, is called a *class*. ... Classes, since they are extensions, are quasi objects. Thus the class symbols do not have independent meaning; they are merely aids for making statements about all the objects which satisfy a given propositional function without having to enumerate them one by one. Thus the class symbol represents, as it were, that which these objects, i.e., the elements of the class, have in common. (Carnap 1928: 57)

Philosophy is supposed to unveil deep and important truths about ourselves. We expect philosophers to tell us what we really are, or what is our deepest nature, what is the meaning of life, etc. At least we expect philosophers to tell us something about the *condition humaine*. Having this in mind, Carnap's definition might sound like a joke. He tells us that we are "extensions of propositional functions." We are neither rational animals, nor featherless bipeds, nor thinking things. We are extensions of propositional functions! And this is what we really are! This is our ultimate nature! But what sense does it make? How can we be logical entities? Well, this does not mean that we are logical entities. To say that an object can be described mathematically is one thing, and to say that an object is a mathematical object is quite another thing. Trajectories of celestial bodies can be described mathematically, but this does not mean that celestial bodies *are* mathematical entities. They are mostly rocks. Now, since we are classes of elementary experiences, and elementary experiences are psychological entities, one might conclude that we as well are psychological entities. However, things are not so simple. Classes need not and can not have properties that their elements have. The class of wooden objects is itself not a wooden object, the class of rectangular objects is itself not rectangular, etc. Carnap is explicit about it:

Not only is it not the case that a class is identical with the whole corresponding to it; it even belongs to a different sphere. ... *Nothing can be asserted of a class that can be asserted of its elements*. ... a class does not belong to the same sphere as its elements. (Carnap 1928: 64)

So, although experience is the stuff that we are made of, we are not experience, we belong to a different domain. Now, the question that we might ask here is whether Carnap was a reductionist or antireductionist about the

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<sup>9</sup> Not to mention the stronger claim that they are *ours*, that is, that they belong to a single conscious subject.

self. What was his view, that I am *nothing but* my experience, or that I am *something over and above* my experience? On the one hand, he obviously was a reductionist about the self. *Aufbau* was essentially a reductionistic project. In a preface to the second edition he says that the central thesis of the book is that “it is in principle possible to reduce all concepts to the immediately given.” (Carnap 1928: vi) Since everything else is reducible to the immediately given, so is the self. Also, in a §33 quoted above he says that “the class symbols do not have independent meaning; they are merely aids for making statements about all the objects which satisfy a given propositional function without having to enumerate them one by one.” (Carnap 1928: 57) Let me paraphrase this statement. It means that the pronoun “I” does not have independent meaning but that it is merely an aid for making statements about all the elementary experiences I have without having to enumerate them one by one.<sup>10</sup> In other words, when I talk about myself, I in fact talk about all of my elementary experiences. There is no special entity that I talk about. Carnap claims that a class symbol “by itself means nothing.” Talking about the class symbol “*ma*” (of a propositional function “*x* is a man.”) he says: “Even though *ma* itself does not designate anything, one speaks of “the designatum of *ma* as if it were an object.” (Carnap 1928: 58) This is a very strong reductionistic claim. However, on the other hand, Carnap also makes antireductionist claims about the self. As we saw above, he argues that we cannot assert of the class the same things that we can assert about its elements, and that classes and their elements belong to a different spheres. In §37 *A Class Does Not Consist of its Elements* Carnap says: “Classes cannot consist of their elements as a whole consists of its parts. Classes are quasi objects relative to their elements; they are autonomous complexes of their elements.” (Carnap 1928: 63) So, to paraphrase, we are quasi objects relative to our elementary experiences, or, we are autonomous complexes of our elementary experiences. And this is a very strong antireductionist claim. Also, Carnap quotes Frege who said “The extension of a concept does not consist of the objects which fall under the concept.” (Carnap 1928: 64)

Now, the question is whether Carnap is a reductionist here or an antireductionist. Obviously, he has inclinations for both options. But the question is whether his views are consistent. Can he have a pie and eat it? The

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<sup>10</sup> Carnap’s view has one flaw. Since we are *classes* (the extensions of a propositional function with only one argument position), the basis of reduction is necessarily limited to only one kind of things (elementary experiences). This means that *body* cannot be included in the basis of reduction. As we will see, in this respect Reichenbach’s *abstracta* are much more plausible candidates because they can be composed of different kinds of things.

general problem with the reductionism and antireductionism about the self is that, on the one hand, it seems that reductionism is not enough, while, on the other hand, it seems that antireductionism is too much. On the one hand, we are inclined to think that we are something that *has* experience (not that we just *are* experience). On the other hand, we do not want to postulate the existence of Cartesian Egos, bare particulars, substrata, or other occult entities. And it seems that this is exactly what the concept of a class provides. On the one hand, a class is not reducible to its elements, while, on the other hand, there is no special entity to which it refers. We might say that the introduction of the concept of a class enabled Carnap to defend *conceptual antireductionism* and *ontological reductionism*. In other words, it enabled him to navigate between the Scylla of reductionism and the Charybdis of antireductionism. If we have to make an overall verdict on whether Carnap was a reductionist or an antireductionist about the self, I think that we should say that, all things considered, he was an antireductionist about the self. The main reason for this verdict would be the fact that on many places in the *Aufbau* he insists on the point that classes are not reducible to their elements.

In trying to decide whether Carnap was a reductionist or an antireductionist about the self, perhaps one more thing might be relevant. It is a general question whether there is any reality behind the objects that he talks about. However, he systematically refuses to answer this question. He rejects it as meaningless. In §5 *Concept and Object*, he says:

Does thinking “create” the objects, as the Neo-Kantian Marburg school teaches, or does thinking “merely apprehend” them, as realism asserts? Construction theory employs a neutral language and maintains that objects are neither “created” nor “apprehended” but *constructed*. I wish to emphasize from the beginning that the phrase “to construct” is always meant in a completely neutral sense. From the point of view of constructional theory, the controversy between “creation” and “apprehension” is an idle linguistic dispute. (Carnap 1928: 10)

Here we should rely on the distinction that Carnap explicitly introduced later. (Carnap 1950) It is the distinction between *internal* and *external* questions. If the question whether Carnap believed that selves really exist is understood as a question internal to the constructional system of the *Aufbau*, the answer is positive. Yes, he believed that selves exist! They are constructed and they exist! However, if the question is understood as external to the system, then the answer is that he rejected the question as meaningless.

## 4.2. Alfred Jules Ayer: The Self is a Logical Construction out of Sense-Experiences

In *Language, Truth and Logic* from 1936, Chapter 7 *THE SELF AND THE COMMON WORLD*, A. J. Ayer says what the self is:

We know that a self, if it is not to be treated as a metaphysical entity, must be held to be a logical construction out of sense-experiences. It is, in fact, a logical construction out of the sense-experiences which constitute the actual and possible sense-history of a self. And, accordingly, if we ask what is the nature of the self, we are asking what is the relationship that must obtain between sense-experiences for them to belong to the sense-history of the same self. And the answer to this question is that for any two sense-experiences to belong to the sense-history of the same self it is necessary and sufficient that they should contain organic sense-contents which are elements of the same body. (Ayer 1936: 165)

This analysis is in the spirit of Hume's *bundle theory of the self*. However, Ayer warns us that there is an important difference. In Hume's analysis self is a *bundle* or *aggregate* of experiences, while in Ayer's analysis self is a *logical construction* out of experiences. Now, the question here is what is a logical construction.<sup>11</sup> *X* is a logical construct out of *a*, *b* and *c* if and only if sentences about *X* can be translated into sentences about *a*, *b* and *c*. "What we hold is that the self is reducible to sense-experiences, in the sense that to say anything about the self is always to say something about the sense-experiences." (Ayer 1936: 168) Of course, it is questionable whether such program can really be carried out.<sup>12</sup> Hume had a problem; he did not know how to prove that two experiences belong to the same self. Ayer offers a solution here. Roughly speaking, the answer is that they belong to the same *body*. Ayer also offers a solution to the problem of *epistemic subject*. A problem for any version of the bundle theory is that experiences have to belong to a subject, they cannot be subjectless. Experience has to be *somebody's* experience! And this is the problem for the reductionism about the self. How can the self be constructed out of experience when the very notion of experience presupposes a self to which it belongs? Ayer agrees

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<sup>11</sup> Logical positivists took this notion from Russell and used it extensively. Carnap starts his *Aufbau* by quoting Russell. "The supreme maxim in scientific philosophizing is this: Whenever possible, logical constructions are to be substituted for inferred entities." (Carnap 1928: 5; Russell 1914: 155)

<sup>12</sup> In fact, this ambition amounts to replacing *personal* language with the *impersonal* one. But the question is whether a complete impersonal description of the world would be a complete description of the world. The worry is that it would miss something very important; that I am BB, that you are ... , etc. The issue was raised by Nagel (1986). Very nice exposition, as well as contribution, to the debate can be found in Baker (2013). Although this is a very important issue, I will not discuss it here.

that experience has to belong to a subject, but he does not believe that this forces us to stipulate the existence of the Cartesian mental substance. He tells us how we can think and talk about the epistemic subject without commitment to a suspicious metaphysical baggage.

We shall see that this relation of being experienced by a particular subject is to be analysed in terms of the relationship of sense-contents to one another, and not in terms of a substantival ego and its mysterious acts. (Ayer 1936: 161, 162)

This approach to the analysis of a subject is not only ontologically more economic. We can pay the ontological price if we have to. The point is that this kind of analysis is methodologically far superior to the Cartesian analysis. To say that we can think because we are thinking things is to explain nothing. It is a raw model of *virtus dormitiva* explanation. The reductive analysis of the self is intrinsically more fertile because it explains characteristics of the self as relationships between the elements, not as its primitive characteristics. If we introduce, say, second order desires or higher order thoughts, we can explain something about ourselves. But what could we explain if we introduce a substance whose essential attribute is thinking?

In his critique of *Cogito* Ayer does not rely on the logical analysis only. He also relies on the assumptions of empiricism, verificationism and neutral monism. As empiricists, Ayer hailed Locke's famous critique of the notion of substance as something "we know not what" that supports and holds together observable properties of material objects. (Locke 1690: 269; Book II, Chapter XXIII, §3) Though, Ayer believed that the same holds for the Cartesian notion of mental substance. No matter whether substance is physical or mental, we have no reason to stipulate its existence.

For it is clearly no more significant to assert that an "unobservable somewhat" underlines the sensations which are the sole empirical manifestations of the self than it is to assert that an "unobservable somewhat" underlines the sensations which are the sole empirical manifestations of a material thing. (Ayer 1936: 166, 167)

Generally speaking, logical positivists did not rely on the principle of verification in their rejection of *Cogito*, as one might expect. They primarily treated *Cogito* as a logical error and dismissed it on *a priori* grounds. Ayer is also explicit about it. Nevertheless, in a couple of places he criticizes Cartesian argumentation from a verificationist perspective. The assumption that there is a mental substance is not "capable of being verified." (Ayer 1936: 161) Also, immortal soul is a "metaphysical entity, concerning which no genuine hypothesis can be formulated." (Ayer 1936: 168)

One of the shared assumptions of logical positivism was *neutral monism*.<sup>13</sup> It is the view that basic constituents of knowledge are neither physical nor mental, but rather neutral with respect to this distinction. The idea is that physical and mental has to be constructed out of these neutral elements. Basic elements are, by themselves, not yet physical or mental.

And we have seen that the terms “mental” and “physical” apply only to logical constructions, and not to the immediate date of sense themselves. Sense contents themselves cannot significantly be said either to be or not to be mental. (Ayer 1936: 187)

For Ayer, these basic elements are *sense-contents*. Obviously, neutral monism provides a very good platform for the critique of *Cogito*. Since my own mind is also a construct out of the basic and neutral elements, I cannot be sure about the content of my own mind and doubt everything else.<sup>14</sup> Just as it is logically possible that physical objects do not exist, it is logically possible that mental objects do not exist. Ayer says that Berkeley was right when he offered a phenomenalistic analysis of physical objects, but wrong when he did not offer such analysis of mental objects. (Ayer 1936: 167) For this reason, idealism, solipsism and *Cogito* are ill formed. And it was Descartes who was also guilty of this error, so influential in the history of western thought. In the concluding chapter of *Language, Truth and Logic, Chapter 8 SOLUTIONS OF OUTSTANDING PHILOSOPHICAL DISPUTES*, Ayer says:

I think that the idealist view that what is immediately given in sense-experience must necessarily be mental derives historically from an error of Descartes. For he, believing that he could deduce his own existence from the existence of a mental entity, a thought, without assuming the existence of any physical reality, concluded that his mind was a substance which was wholly independent of anything physical; so that it could directly experience only what belonged to itself. (Ayer 1936: 187)

Things are clear here. If neutral monism is right, Descartes has to be wrong. If the basic elements of our knowledge are neutral, then it cannot be true that *Cogito* is “the first and most certain thing to occur to anyone who philosophizes in an orderly way.” (Descartes 1644: 2, 3; §10) A chain of epistemic justification cannot start with *Cogito*. Before that we have to construct *I* and *thinking* out of neutral elements. However, even if we accept this analysis, the interesting question is whether we can proceed with Cartesian epistemology and doubt the existence of the world *once* we construct *I* and *thinking* out of neutral elements. Can we consistently assert the following two propositions?

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<sup>13</sup> Logical positivists inherited this view primarily from Mach and Russell.

<sup>14</sup> Perhaps Lichtenberg dictum should also be understood in this sense.



- (1) *I* and *world* are constructed out of neutral elements.
- (2) I can doubt the existence of the whole world but I cannot doubt my own existence.

Perhaps (1) and (2) are not in a direct contradiction, but there certainly is some tension between them. Here we have another pair of propositions:

- (1) I can develop a concept of a self only if I have a body.
- (2) I can doubt whether I have a body.

The idea is that *once* I develop a full concept of a self, I can consistently doubt whether I really have a body. Of course, the question is whether this is consistent.

#### 4.3. Hans Reichenbach: The Ego is an Abstractum Composed of Concreta and Illata

In *Experience and Prediction* from 1938, in §28. *What is the Ego?* Hans Reichenbach says what the ego is, that is, what is the thing that “I” refers to:

The ego is an abstractum, composed of concreta and illata, constructed to express a specific set of empirical phenomena. ... First is the fact that among all human bodies there is one, our own body, which accompanies all phenomena. ... There is, second, the fact that some physical phenomena are known to ourselves alone. ... We find in this way that our description of the physical world differs in some respect from the description of other people. The set of facts we refer to here is the same as expressed by the idea that the immediate world is directly accessible to one person alone. It is the whole of these facts which is comprehended by the abstractum “ego.” (Reichenbach 1938: 259, 260)

Here we have to explain what abstractum is. For Reichenbach, “abstract” does not mean “out of space and time,” as it is often used today. In his ontology Reichenbach has three kinds of entities; *abstracta*, *concreta* and *illata*. *Concreta* are middle sized physical objects that we encounter in the world; chairs, tables, cats, etc. *Illata* are inferred entities; atoms, mental states, etc. *Abstracta* are entities that are constructed out of concreta; “political state, the spirit of the nation, the soul, the character of a person.” (Reichenbach 1938: 93; §11. *The existence of abstracta*) Now, the question is whether abstracta exist, more precisely, in this context the relevant question is whether abstracta exist *on their own*, or they are reducible to concreta without remainder. In Reichenbach’s opinion, abstracta do not have *per se* existence, they are completely reducible to concreta. “To one abstract proposition we co-ordinate a group of concrete propositions in such a way that the meaning of the group is the same as the meaning of the abstract proposition.” (Reichenbach 1938: 95) Since an abstract fact can be realized in more than one way, a reductive proposition will be a disjunction of conjunctions. (Re-

Reichenbach 1938: 95) Derek Parfit would say that for Reichenbach there was “no further fact” about our own existence. But still, the question is whether Reichenbach was a reductionist or an eliminativist about the self. If the self is reducible without a remainder, what does it mean? That it exists or that it does not exist? In a manner of a good logical positivist, Reichenbach argues that it is a pseudoquestion:

We see, then, that the question whether or not abstracta exist, whether or not there is the term only or also a corresponding entity, is a pseudo-problem. The question is not a matter of truth-character but involves a decision - a decision concerning the use of the word “exist” in combination with terms of a higher logical order. ... The decision may even depend on the profession of the speaker. For a merchant supply and demand may be existent entities, whereas an electrician would conceive an electrical charge as existent. It is a remarkable psychological fact that this “feeling of existence” which accompanies certain terms is fluctuating and depends on the influence of the milieu. The pursuit of this question is of great psychological interest; for logic there is no problem at all. (Reichenbach 1938: 97)

But, are we abstracta? Do we really belong to the same ontological category as supply and demand, race, or spirit of the nation? In *Categories* Aristotle claimed that we are *primary substances*, a paradigmatic case of existence. (Aristotle 1963: 5; 2a11) In *Individuals* P. F. Strawson argued that we are *basic particulars*. (Strawson 1959: 38) Although we know that we have parts, in more than one sense, we mostly think and talk about ourselves as *individual substances*. Reichenbach’s claim that we are abstracta seems just false. Where did he go wrong? If he did, of course. It seems that Reichenbach’s analysis of reduction of a complex to its internal elements does not take into account *the level of integration* of complexes. Different complexes have different levels of integration. It makes some sense to claim that Indonesia does not really exist and that what really exists are 18 thousands islands. It makes much less sense to claim that Australia does not exist and that what really exists is its eastern half and its western half. The difference is in the obvious fact that Australia is territorially much more integrated than Indonesia. Different parts of a single man stick together much more firmly than different parts of a nation or of a race. And this is why a man is a much better candidate for a really existing entity than a nation or a race. Although a general reductionistic schema “X is nothing but *a, b, c, ...*” or “X is nothing over and above *a, b, c, ...*” can be satisfied by different candidates, it does not mean that we should categorize all of these candidates as abstracta.<sup>15</sup>

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<sup>15</sup> Perhaps Reichenbach’s distinction between abstracta and concreta should be understood as *relational*; that elements of an abstractum are concreta *in relation* to that abstractum.

This is Reichenbach's "official view" about the ontological status of the self in *Experience and Prediction*. Though, perhaps there is something puzzling in his writings. Sometimes he talks about the *construction* of the Ego, sometimes about the *discovery* of the Ego. However, the expression "discovery of the X" implies realistic construal of the X. It implies that X is something that exists before and independently of our discovery of it. Of course, within the framework of the positivistic *constructional system* the difference between the construction and the discovery fades away. After all, physical objects (concreta) are also constructs, they are constructed out of impressions. Nevertheless, when one goes through the Reichenbach's analysis of the Ego, one often gets the impression that he was a realist about the Ego. In my opinion this would be a very plausible interpretation of his views, though, this was not what he said in *Experience and Prediction*. However, 13 years later, in *The Rise of Scientific Philosophy* from 1951, he takes a realist stance about our own existence and says:

We have no absolutely conclusive evidence that there is a physical world and we have no absolutely conclusive evidence either that we exist. But we have good inductive evidence for both assumptions. ... we have good reasons to *posit* the existence of the external world as well as that of our personalities. All our knowledge is posit; so, our most general knowledge, that of the existence of the physical world and of us human beings within it, is a posit. (Reichenbach 1951: 268)

Today we would say that he was a *critical realist* here, or even that he relied on *the inference to the best explanation*: I am justified in believing that I exist because the assumption that I exist is the best explanation of a number of phenomena.<sup>16</sup>

#### 4.4. Reichenbach on *Cogito*

Although a critique of *Cogito* is presented in the previous chapter of the article, Reichenbach's critique will be presented in this chapter because it presupposes his positive views about the nature of the self. No matter whether Reichenbach's conclusion about the ontological status of the self in *Experience and Prediction* is right or not, his analysis of the Descartes' argument is detailed and excellent. Talking about the *Cogito*, he says:

There is a long line of experience hidden behind this "I." The ego is by no means a directly observed entity; it is an abstractum constructed of concreta and illata as internal elements. Descartes's idea that the ego is the only thing directly know to us and of which we are absolutely sure, is one of the landmarks on the blind alley of traditional philosophy. It involves mistaking an

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<sup>16</sup> It is plausible to interpret Reichenbach as a realist or rather as a proto-realist. In *Experience and Prediction*, §14 *A cubical world as a model of inferences to unobservable things* he describes, and prescribes, how we should infer the existence of unobservable things.

abstractum for a directly observed entity, mistaking an empirical fact for a priori knowledge, mistaking a product of experience and inferences for the metaphysical basis of the world. Empiricists of all times have rightly opposed it. (Reichenbach 1938: 261)

(Of course, at this point he quotes Lichtenberg.) Reichenbach's critique of Descartes' *Cogito* can be summed up in the following five points:

- (1) Self is not something simple, it is something composed of elements.
- (2) Self is not known by a direct insight, but indirectly and gradually.
- (3) Self is not the Archimedean point of the knowledge, it is discovered later in the process of the rational reconstruction.
- (4) Self is not known *a priori* but *a posteriori*, its existence is an empirical discovery.
- (5) Self is not something that exists necessarily, its existence is contingent.

In order to fully understand Reichenbach's critique, a crucial thing to have in mind is that he was a *direct realist*. He believed that what we perceive are physical objects in the world, not our impressions. The idea that we have impressions is not an immediately given fact of the consciousness, it is *a result of the epistemological reflection*. For Reichenbach, impressions are *illata*, inferred entities, theoretical entities, not something that is immediately given to us. The consequence of this difference in status is the difference in the level of certainty. For Descartes, when I think that I have the impression of *X* I *can be absolutely sure* that I really have the impression of *X* because I am immediately aware of it. However, for Reichenbach, when I think that I have the impression of *X* I *cannot be absolutely sure* that I really have it because theoretical inference can always be wrong. If my theory is wrong, then I do not have the impression of *X*, rather something else is going on. In *Experience and Prediction* Reichenbach dedicates a whole part of the book to impressions, *Part III. AN INQUIRY CONCERNING IMPRESSIONS*, especially §19. *Do we observe impressions?*

What I observe are things, not impressions. I see tables, and houses, and thermometers, and trees, and men, and the sun, and many other things in the crude sphere of crude physical objects; but I have never seen my impressions of these things. ... I believe that there are impressions; but I have never *sensed* them. When I consider this question in an unprejudicated manner, I find that I *infer* the existence of my impressions. ... The distinction between the world of things and the world of impressions or representations is therefore the result of epistemological reflection. (Reichenbach 1938: 162, 163)

Now, let's go back to the above list of the five points.

- (1) For Descartes self is something simple. It is a substance (i) to which attributes are attached and (ii) which serves as a principle of individuation.

In the *Sixth Meditation* Descartes says: “When I consider my mind, that is to say myself in so far as I am only a thinking thing, I can distinguish no parts, but conceive myself as one single and complete thing.” (Descartes 1641: 164) In opposition to this, Reichenbach holds that self is composed. Abstractum is something that is essentially composed of elements. (Perhaps this explains Reichenbach’s choice, why he argued that we are abstracta rather than concreta.) So to say, for Descartes I *am* a simple substance to which different attributes are attached to, while for Reichenbach I just *am* the elements that I am composed of.

(2) It would not be quite correct to say that for Descartes self is known by a direct insight. As we saw at the beginning of this article, in the analysis of *Cogito*, for Descartes self is inferred, not directly given in the experience. Though, not much is needed for this inference. A single thought plus the axiom that a thought cannot exist without the one who thinks it. On the other hand, for Reichenbach the discovery of the self is a whole epistemological process, certainly not a single step. We have to know a lot before we have a right to claim our own existence. Of course, Descartes was not naive. He knew that the discovery of the self is a long process. In the *Sixth Meditation* he talks about this process:

Firstly then, I perceived that I had a head, hands, feet and all the other members of which body that I considered as a part, or perhaps also as the whole of me, is composed. Further, I perceived that this body was placed among many others, from which it was capable of receiving various agreeable and disagreeable effects, and the agreeable ones I observed by a certain feeling of pleasure, and the disagreeable ones by the feeling of pain. And besides this pleasure and pain, I also felt within me hunger, thirst and other similar appetites, as also certain composed inclinations toward joy, sadness, anger and other similar passions. (Descartes 1641: 152, 153)

One might wonder where is the relevant difference between this description of Descartes and previously quoted description of Reichenbach. Details aside, they both described the same process. So, what’s the difference? The difference lies in the fact that, although they both described the same process, for Descartes this description is *explanatory* only while for Reichenbach it is also *justificatory*. And this brings us to the next point.

(3) Descartes and Reichenbach both wanted the same thing, they wanted to justify our beliefs, they wanted to prove that we have knowledge. However, for Descartes the chain of justification starts with *the Cogito*, while for Reichenbach it starts with *the Given*. In other words, they differ in their choice of the Archimedean point of knowledge. For Descartes it is *the Cogito*, for Reichenbach it is *the immediate experience*, that is, *the Given*. Also, for Descartes *Cogito* is indubitable, while for Reichenbach it is not indubitable because it is grounded in the fallible theoretical inference

that I have impressions, not in the infallible immediate awareness of these impressions. Thus in *The Rise of Scientific Philosophy* from 1951, §3. *The Search for Certainty and Rationalistic Conception of Knowledge*, Reichenbach says:

If the existence of the ego is not warranted by immediate awareness, its existence cannot be asserted with higher certainty than that of other objects derived by means of plausible additions to observational data. (Reichenbach 1951: 35)

Besides, Reichenbach was a fallibilist and was not impressed with rationalistic search for certainty. He even made a Freudian diagnosis of Descartes' search for certainty: "this man needed his philosophical system in order to overcome a deeply rooted complex of uncertainty." (Reichenbach 1951: 36)

(4) Strictly speaking, *Cogito* is not completely *a priori*. Its first part "I think." (or "There is thinking now." or "There is a thought now.") is *a posteriori*. Of course, it is neither a proper empirical knowledge about the facts in the world because it is supposed to be obtained through the introspection about my own mental states. The inference to the "I am" relies on the *a priori* common notion or axiom that one who thinks has to exist in order to think, or on the *a priori* axiom of the S-A ontology that attribute has to be attached to a substance. In this sense, for Descartes the discovery of my own existence is *a priori*. My own existence is a truth of reason, given that there is a single thought. On the other hand, for Reichenbach the discovery of my own existence is completely *a posteriori*. Bodily states are discovered through experience, while impressions or representations are posited in order to explain certain empirical phenomena. "It is the empirical discovery of the difference between the subjective and the objective world which is expressed by the use of 'I'" (Reichenbach 1938: 260) One's own existence is completely empirical fact, even for the one who discovers it from the first person perspective. Reason alone cannot tell me that I exist. Avicenna's *floating man* could not find out that he exists.

(5) For Descartes, as soon as there is experience, there *must* be an I who experiences. That is, given a single piece of experience, my own existence is necessary. However, for Reichenbach, even when there is experience, it is still an open question whether there is an I who experiences. A proper rational reconstruction of experience can, but need not, lead to the discovery of the self whose experience it is. So, even when experience exists, my own existence is still contingent. This is a very strong claim. How could experience exist without somebody whose experience it is? Descartes thought something like this is inconceivable. In the *Sixth Meditation* he says:

I find in me faculties of thought altogether special and distinct from myself, such as the faculties of imagination and perceiving, without which I can indeed conceive myself clearly and distinctly as whole and entire, but I cannot conceive them without me, that is to say, without an intelligent substance to which they are attached. (Descartes 1641: 156, 157)

What is implausible here is the claim that even without the faculties of imagination and perception I would still be “whole and entire.” What is certainly plausible here is the claim that these faculties cannot exist “without an intelligent substance to which they are attached.” However, Reichenbach accepts the challenge and argues that in principle there can be experience without a self to which it belongs:

As the abstractum “ego” is to express an empirical fact, we are free to imagine a world in which there would be no ego. Imagine that all people were connected, according to the salamander operation (§27), in such a way that everybody shared the impressions of everybody else. Nobody would then say, I see, or I feel; they would all say, There is. On the other hand, we may obtain the opposite case by dissolving the unity of one persona into different egos at different times; if there were no memory, the states of one person at different times would be divided into different persons in the same way that spatially different bodies are divided into different persons. The concept of ego then would not have been developed. (Reichenbach 1938: 261, 262)

It is hard to say how things would look like if 7 billions of us were all connected in such a way. There would be no individual selves but such a grotesque creature could develop some sense of a self, as distinct from mountains and oceans. Probably some errors in perception would occur and be corrected later. In that case a creature could understand a difference between *I see* and *There is*. A creature would probably not develop a concept of heteropsychological, it would be lonely. Perhaps, contrary to Reichenbach’s intuitions, it would come to the conclusion *I think, therefore I am*. Though, it is not clear how it could formulate it. A creature would probably not develop a language because it would not need a verbal communication. The opposite case is also not quite clear. People without memory could not learn anything, they could not understand anything. Assume that our memory is being wiped every day at midnight, or 1st of January every year. That would still be a too short period to develop selves. We could say that in a sense there would be selves but they would not last long enough to understand that they exist. No matter how convincing we find these thought experiments of Reichenbach, he did hit at the right place. He did not want to show that in the empty universe there would be no selves. This claim would be trivial. He wanted to show that, even in the universe in which there was experience, there still might be no selves. And this is an interesting and very strong claim.

Reichenbach argues that my own existence is a *hypothesis* for me. But if it is a hypothesis then it must be in principle possible that it is false. And this means that it must in principle be possible that I only think that I exist but that I do not really exist. But how could that be? How could I think that I exist if I do not exist? This is the Descartes' foothold. Here we are not talking about the feeling of authenticity that we might sometimes have. We may say "I did not exist until I discovered my true self." But this is only a metaphor. Here we talk literally about our own existence. I can imagine a scenario where I wake up and discover that everything up until this morning was a dream. I could imagine a scenario in which I discover that I am a brain in a vat in the laboratory somewhere at the Alpha Centaury. In these radical sceptical scenarios I would find out that I had completely wrong beliefs about my own nature and position in the world, but these discoveries would be discoveries about *me*, the same *thinking subject*, the same *subject of experience*. But how could I imagine a scenario that one morning I wake up and discover that I do not exist, and that I never did exist? Who is discovering that if I do not exist? Reichenbach's salamander operation thought experiment describes such a situation. We can imagine that one human body, although in fact a part of collective consciousness, wrongly believes that it has individual existence. One day he discovers that he does not have independent existence but that he is just a part of collective consciousness. In fact, this idea is present in religion and science fiction. Perhaps Buddhist No-Self View is true and we do not really have individual existence. We may wake up one morning with that revelation. In *Star Trek* a Borg drone might have a fever and hallucinate that he exists on his own. As if my little finger hallucinated that it existed on its own but in fact it did not. Odo might immerse himself into the Great Link and end the illusion of independent existence. In a sense, we can understand such scenarios, but still the question remains. What sense does it make to claim that for 50 years I falsely believed that I existed but that in fact I did not exist? Even if tomorrow morning I merge myself into a huge cosmic soul, if for 50 years I believed that I existed, then I existed for 50 years. Even if my beliefs about myself were massively wrong, they were *my* beliefs, beliefs of a single subject of thinking and experience. Real people in *Matrix*, who lay intubated in baths, are still subjects of experience, although they have completely wrong beliefs about themselves.

## 5) Reductionism and Circularity

Generally speaking, there are three possible views about the self. (1) *Antireductionism* - Self exists on its own. It exists *per se*. It is something that has experience, memory, body, character traits, etc. but in principle it can



exist independently of these elements. (2) *Reductionism* - Self exists. However, it is nothing but its experience, memory, body, character traits, etc. It has no existence over and above the elements that it is composed of. (3) *Eliminativism* - Self does not exist. We only think that there are such things as selves but in reality such things simply do not exist. Logical positivists were reductionists about the self. They believed that the self existed but that it was reducible to experience.

Standard objection to the reductionism about the self is *circularity*.<sup>17</sup> For reductionists the self is usually seen as something that is reducible to experience. However, the problem with this option is that experience is not something that can exist on its own. It can exist only if it belongs to somebody whose experience it is. Talk about experience implicitly presupposes self who has that experience. The concept of experience implies the concept of self. Carnap himself was well aware of this fact. In the *Aufbau* §18 *The Physical and Psychological Objects* he says that “psychological objects have the positive characteristic that each of them belongs to some individual subject.” (Carnap 1928: 33) Perhaps we can understand the general spirit of the Lichtenberg’s comment that we should say *It thinks!* just as we say *It lightens!* But in its literal meaning, the comment is not clear. Lightning does not need a subject, but thinking does. There can be a lightening without Zeus, Perun, St.Elias, or someone who lightens, but there cannot be thinking without someone who thinks. We cannot take “Love is in the air!” in its literal meaning. It is only a metaphor. So, the objection runs that we cannot define the self in terms of experience because experience presupposes the self. In such a definition an explanans would contain an explanandum. A reductive sentence of the form:

*X* is nothing but *a, b, c, ...*

cannot fulfill its reductive purpose because the meaning of “*a, b, c, ...*” entails that there must be an *X* to which they belong.

Logical positivists were well aware of this problem and they had an elaborated answer to it. The problem, as well as its solution, can be best understood within the framework of the positivistic *constructional systems*. That is, Carnap’s *The Logical Structure of the World* from 1928 and Reichenbach’s *Experience and Prediction* from 1938. On the one hand, they wanted to show how the self is constructed out of the elementary experiences, that is, out of the given. On the other hand, they started their constructional systems with the *elementary experiences*. But whose experiences? As we saw, experience has to be somebody’s experience. Does it mean that there

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<sup>17</sup> I discuss the objection of circularity in (Berčić 2004).

is a concealed epistemic subject already at the very beginning of their constructional systems? Does it mean that Carnap and Reichenbach in fact started their epistemic endeavours from their own experience, just as Descartes did? Well, in a sense they did. However, in a relevant sense they did not. §65 of the *Aufbau* has the indicative title *The Given Does Not Have a Subject*. In that paragraph Carnap explains:

In our system form, the basic elements are to be called experiences of the self after the construction has been carried out; hence, we say: in our constructional system, “my experiences” are the basic elements ... the characterisations of the basic elements of our constructional system as “autopsychological”, i.e., as “psychological” and as “mine”, becomes meaningful only after the domains of the nonpsychological (to begin with, the physical) and of the “you” have been constructed. (Carnap 1928: 104)

In order to be completely clear about it, and in order to avoid vicious circle, in §75 Carnap draws a distinction between *factual language* and *constructional language*. The expressions of the factual language he marks with the index “<sup>p</sup>” and the expressions of the constructional language with the index “<sup>c</sup>”. He relies on this distinction already in §64 *The Choice of the Autopsychological Basis*, where he says:

We prefer to speak of the *stream of experience*. The basis could also be described as *the given*. But we must realize that this does not presuppose somebody or something to whom the given is given. The expression “the given” has the advantage of a certain neutrality over the expression “the autopsychological” and “stream of experience.” Strictly speaking, the expression “autopsychological” and “stream of experience” should be written in the symbolism introduced in §75 as <sup>p</sup>autopsychological<sup>p</sup> and <sup>p</sup>stream of experience<sup>p</sup>. (Carnap 1928: 101, 102)

So, although the basis of the constructional system is <sup>p</sup>my own experience<sup>p</sup> the justification is not circular because it starts with the <sup>c</sup>subjectless given<sup>c</sup>. Although I know that <sup>c</sup>subjectless given<sup>c</sup> is in fact <sup>p</sup>my own experience<sup>p</sup>, I have to start the process of rational reconstruction from the <sup>c</sup>given<sup>c</sup>. Does it mean that I have to start the process of justification of all of my beliefs from my own experience and pretend that I do not know that it is my own experience? Well, yes! I can justify all of my beliefs only if I sincerely pretend that I do not know that the starting point is my own experience. It is the only way in which I can justify my beliefs that my own experience is experience and that it is mine. The claim that <sup>c</sup>I<sup>c</sup> am constructed out of <sup>p</sup>my own experience<sup>p</sup> would be circular and uninteresting, but the claim that <sup>c</sup>I<sup>c</sup> am constructed out of <sup>c</sup>my own experience<sup>c</sup> is a valuable theoretical insight into my own nature. And this is the claim of the reductionism about the self: I have to show how am I constructed out of the given, that is, how am I constructed out of elements that do not already contain I. Reduction-

ist in general has to show how *X* comes into existence out of elements that do not contain or presuppose *X*.

In *Experience and Prediction* §28 *What is the Ego?* Reichenbach offers the same answer.<sup>18</sup> He says that he uses the ego-language just for the sake of convenience. He holds that all the facts that lead to the discovery of the ego in principle can be described in a neutral language, without using the concept of the ego.

We described, some lines previously, the facts leading to the discovery of the ego, and said “We stand at the window and see a car ... another person ... tells us ...” Thus in this description we already used the ego-language which we wanted to substantiate. This is, however, no contradiction or vicious circle. We used the usual ego-language only to be more easily understood. We could have given the same description by speaking in a neutral language. The original neutral language does not say “I see” but “There is”; only because we hear that another person answers “There is not” do we retire to the more modest statement “I see.” (Reichenbach 1938: 260)

Reductionism about the *X* is usually expressed by sentences like “*X* is nothing but *a, b, c, ...*” or “*X* is nothing over and above *a, b, c, ...*” where *a, b, c, ...* are the elements that *X* is composed of. Such reductive sentences can be understood in at least three senses: (1) semantic, (2) epistemological, and (3) ontological. Generally speaking, logical positivists were reductionist about the self in all of these senses. (1) *Semantic reductionism* is the view that when we talk about *X* we in fact talk about *a, b, c, ...* “*X*” does not have any meaning on its own, different from the meaning of “*a, b, c, ...*” This is a semantic reductionistic thesis about the meaning of “*X*.” Alternative might be a sort of *error theory* - a claim that “*X*” has a meaning of its own, but, since no corresponding entity exists, it does not refer at all. A thesis of semantic reductionism might be expressed as a claim that *X-language* is in principle replaceable with the *a,b,c,-language*, without a loss of meaning. (3) *Ontological reductionism* is the view that *X* has no existence on its own, besides the existence of its elements *a, b, c, ...* Whenever *a, b, c, ...* are given, *X* is given as well. *X* has no causal powers distinct from the causal powers of *a, b, c, ...* (2) *Epistemological reductionism* is a less frequent view, but it is perhaps the most interesting one in this context. It is the view that we cannot know *X* unless we know *a, b, c, ...* The knowledge of *X* presupposes the knowledge of *a, b, c, ...* Or, the only way that we can know *X* is that we know *a, b, c, ...* Carnap explains the idea in the *Aufbau*, §54. *Epistemic Primacy*. We have to have in mind that the constructional systems of logical positivists were primarily epistemological systems, they were organized in

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<sup>18</sup> Although, as we saw, Reichenbach accepts an even stronger challenge and tries to show that experience can exist without the subject.

the epistemological order. Although Carnap talks about the construction of concepts and objects, his overall aim is epistemological. He wanted to justify our beliefs. After all, it was Reichenbach, in the preface to the *Experience and Prediction*, who introduced the distinction between the *context of discovery* and the *context of justification*. His interest was justification of our beliefs. So, when we say that logical positivists were reductionists about the self, we have to emphasise that their reductionism was primarily *epistemological*. Their point was that we cannot know what self is before we know what body is, what senses are, what experience is, what other minds are, etc. Lichtenberg's notice that we should say *It thinks!* as we say *It lightens!* makes more sense if it is understood as a notice about the place of the I-beliefs in the overall epistemological order. In fact, *Cogito* can be formulated within the positivistic constructional system. However, it cannot stand at its beginning. The rational reconstruction of our beliefs has to start much earlier.

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