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Juhos' Antiphysicalism and his Views on the Psychophysical Problem

Introduction

In this paper my primary aim is to discuss Bela Juhos' views on the mind-body problem (or the psychophysical problem, as the logical positivists preferred to call it). In order to achieve this, I find it necessary to provide some background against which his ideas can be located: I shall outline Juhos' metaphilosophical views on the nature and goal of philosophical inquiry, and the diverse accounts of the psychophysical problem in and around the Vienna Circle.

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Juhos, the only member of the Vienna Circle with Hungarian origin,¹ studied mathematics, physics, and philosophy at the University of Vienna. In philosophy, he was a student of Schlick, and his views on most issues followed his master's rather closely. Juhos' philosophical method was a certain sort of linguistic analysis ("die sprachlogische Methode"), according to which one has to deal with philosophical problems the following way. First, one has to clarify the meaning of the concepts used in formulating the philosophical problem and provide them with a new, scientifically acceptable (i.e. verifiable) meaning. Then reformulate the original problem with these new concepts. As a result, the old problem

1 He came from a (possibly Transylvanian) gentry family, who had a steel business at the turn of the 20th century both in Budapest and Vienna. Bela Juhos himself was born in Budapest and moved to Vienna in 1909, at the age of 8. The psychologist Egon Brunswick, who also had connections with the Vienna Circle, also came from a (historical) Hungarian family. However, the branch of Brunswicks he belonged to, had lived in Vienna for long, so his relations to Hungary may have been rather weak. (This information is due to Csaba Pléh.)

(often) dissolves, but new empirical and logical-linguistic problems also arise.² This approach fits well with the general logical positivist methodology of the 1930s, represented especially by Carnap. According to his dictum, “philosophy is the logic of science”, i.e. the task of philosophy is the linguistic-logical analysis of those philosophical concepts, which are important for the sciences (e.g. reality, mind, body, causation, laws, etc.), and also the unfolding of the logical connections between scientific statements.

As for Juhos’ main philosophical interests: he took part in the protocol sentence debate in the first part of the 1930s, siding with Schlick, attacking the physicalist wing. He published several papers on this topic³ in the 1930s; his views from this period are summarized in his book, *Die Erkenntnis und ihre Leistung*, which appeared much later.⁴ Later in his career, from the end of the 1940s until 1970, his interests lay mainly in issues of philosophy of science and epistemology, and in philosophy of physics in particular. He discussed the nature of laws and causation;⁵ he wrote many papers and two books on the philosophical interpretation of physics;⁶ several papers on general epistemological issues. He criticized Popper, claiming that verification and falsification are symmetrical;⁷ he

2 Cf. e.g. Bela Juhos, *Die Erkenntnis und ihre Leistung*. Wien: Springer 1950, pp. 1-2.

3 “Kritische Bemerkungen zur Wissenschaftstheorie des Physikalismus”, in: *Erkenntnis* 4, 1934, pp. 397-418., “Empiricism and Physicalism”, in: *Analysis* 2/6, 1935, pp. 81-92., “Some Modes of Speech of Empirical Science”, in *Analysis* 3/5, 1936, pp. 41-55. All reprinted in Bela Juhos, *Selected Papers on Epistemology and Physics*. Dordrecht-Boston: D. Reidel 1976.

4 This book was Juhos’ Habilitationsschrift, which he submitted to the University of Vienna in 1948.

5 Already early in his career, as e.g. in “Stufen der Kausalität”, in: *Jahresbericht der Philosophischen Gesellschaft zu Wien 1931/32*, pp. 1-19., and also later, e.g. in “Wie gewinnen wir Naturgesetze?” in: *Zeitschrift für philosophische Forschung* 22/4, 1968, pp. 534-548.

6 (zusammen mit Hubert Schleichert) *Die erkenntnislogischen Grundlagen der Klassischen Physik*. Berlin: Duncker und Humblot 1963, *Die erkenntnislogischen Grundlagen der Modernen Physik*. Berlin: Duncker und Humblot 1967.

7 “Die methodologische Symmetrie von Verifikation und Falsifikation” in: *Journal for General Theory of Science* 1/2, 1970, pp. 41-70.

also argued for an operational conception of the relativistic notion of space and time.⁸ Besides, he also published some works in ethical theory.⁹

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Juhos' views on the psychophysical problem may be exposed aptly against the background of the physicalism debate in the first half of the 1930s, so I will locate them in the dialectic of this controversy. First, I shall clarify his general philosophical method somewhat further, and explain his notions of the "physical" and the "mental". Then, I shall shortly introduce the major views on the psychophysical relation in the Vienna Circle, in order to determine Juhos' position more precisely.

As already mentioned, Juhos' method starts with an analysis of the concepts involved in the formulation of a philosophical thesis, including the determination of their scientific, i.e. verifiable meaning. As a result of this analysis, the problems involved in the original formulation may bifurcate into empirical and analytical questions, i.e. synthetic questions that can be settled a posteriori, and analytic questions which concern only language use, the meaning of terms and sentences, and require no empirical inquiry. In Juhos' opinion, as we shall see shortly, the psychophysical problem has both of these aspects: it involves issues of a purely linguistic/analytic character, and issues which are to be decided empirically.

In order to explain the competing alternative positions Juhos outlined concerning the psychophysical problem, it is necessary to make clear Juhos' notions of the "physical" and the "mental". The meaning of these terms are based on a distinction Juhos drew between two types of empirical sentences, viz. empirical-hypotetical and empirical-nonhypotetical sentences. The empirical-nonhypotetical sentences are the so-called Konstatierung- or affirmation-sentences. Such sentences allow for absolute certainty, for it is impossible to be mistaken about their truth values. For such sentences there is no *process* of verification: for,

8 See e.g. "The Influence of Epistemological Analysis on Scientific Research: Length and Time in the Special Theory of Relativity". In: Imre Lakatos and Alan Musgrave (Eds.), *Problems in the Philosophy of Science*. Amsterdam: North-Holland 1968.

9 "Über juristische und etische Freiheit", in: *Archiv für Rechts- und Sozialphilosophie* 29/3-4, 1937, pp. 406-431., *Das Wertgeschehen und seine Erfassung*. Meisenheim an Glan: A. Hain 1956.

as we may put it, their assertion conditions are their truth conditions. The empirical-hypothetical sentences are never certain. The verification of such sentences proceeds basically the following way: one finds logical consequences of the sentence which are empirical-nonhypothetical, i.e. Konstatierungen-sentences, and then check whether these are true. Juhos accepted that such a verification process can never be final, hence the “hypothetic” character of these sentences.

Juhos, following Schlick, strictly upheld both the analytic/synthetic distinction, and the idea of there being incorrigible Konstatierung- or affirmation-statements. He also followed his master in interpreting Konstatierung-sentences in a way analogous with analytic sentences. Accordingly, Konstatierung-sentences are “quasi-analytic”: if they can be formulated meaningfully, they cannot be false. Consequently, he was against the view that *all* empirical sentences – protocol sentences included – are hypothetical (he dubbed this view as “hypothetism”).¹⁰

Juhos defined the terms “physical” and “mental” relying on this conceptual framework. Accordingly, a term is “mental” if it can *also* appear in a Konstatierung-sentence: names of psychophysical objects like “pain”, or verbs referring to experiencing, as “feel”, “see”, “hear”, etc., are such, for example. Such terms may also appear in empirical-hypothetical sentences, as e.g. “While burning one feels pain”. In contrast, a term is “physical”, if it can appear *only* in empirical-hypothetical sentences, i.e. not in Konstatierungen-sentences.

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Now let’s have a look at the main views about the psychophysical problem in the Vienna Circle. In modern philosophy, the problem of how the mind relates to the body originates from Descartes. In the original Cartesian discourse the most perplexing question seemed to be the issue of interaction: how a causal connexion is possible between two such radically different substances as the body and the soul?

Later, however, the importance of this problem diminished, at least for those with empiricist leanings; for according to the Humean-empiricist approach to causation, the nature of the relata of causal relations is irrelevant.

¹⁰ Neurath, Carnap, Popper and Morris advocated “hypothetism” from the early 1930s.

In the second half of the 19th century, among the advocates of “scientific philosophy”¹¹ psychophysical parallelism became the dominant conception concerning the mind-body relation. This broad view, according to which every mental phenomenon is conjoined with some bodily (i.e. brain or neural) phenomenon, was both a scientific-empirical hypothesis and a philosophical (metaphysical) theory. Among the proponents of parallelism, two main strands may be distinguished. One group advocated a realist version of neo-Kantianism, according to which the mental and the physical are two aspects of the one underlying reality (Riehl's views may be an example). The alternative was some sort of phenomenalism-cum-double language view (as e.g. of Mach and Avenarius). According to the latter, there is only one type of phenomena, which we may describe (or rather, construct) in two ways: either as mental (phenomenal) or as physical. These two ways of description, however, do not signify an ontological difference: there are only one sort of – neutral – elements (like, for example, Mach's *Empfindungen*).¹²

In the “classical period” of the Vienna Circle (i.e. from the mid-20s until the mid-30s) these two views, or rather, their logical positivist offsprings, were the major competing conceptions about the psychophysical relation.¹³ Here I follow Juhos' classification of the different versions of parallelism. According to him, parallelism comes in three main varieties: (a) the traditional metaphysical parallelist views, (b) empirical-cum-logico-linguistic views, (c) purely logico-linguistic (or syntactic) views. (A) may be divided further into two types. Either (1) the parallelly instantiated mental and physical processes are different sorts of realities, which are harmonized by a transcendent cause, God (Leibniz's

11 This label denotes some scientifically oriented philosophers or philosopher-scientists, as e.g. Fechner, Mach, Avenarius and Riehl, whose views were an important source of the logical positivists' ideas.

12 There were, of course, adversaries of parallelism as well. Critics from the tradition of *Lebensphilosophie* included Dilthey and Husserl, but James was also a firm opponent. See Michael Heidelberger, “The Mind-Body Problem in the Origin of Logical Empiricism: Herbert Feigl and Psychophysical Parallelism”, in: Paolo Parrini, Wesley C. Salmon, and Merrilee H. Salmon (Eds.), *Logical Empiricism: Historical and Contemporary Perspectives*. Pittsburgh, PA: University of Pittsburgh Press 2003, pp. 258-9.

13 There were some others as well, see e.g. Kaufmann's view in Felix Kaufmann, *Methodenlehre der Sozialwissenschaften*. Wien: Springer 1936.

view, for example). Or (2) the parallel mental and the physical phenomena are different type of appearances of one and the same underlying reality (the Kantian and neo-Kantian approaches).

The traditional metaphysical views can be discarded, according to Juhos, for their main motivation was to by-pass the question concerning the nature of the causal nexus between mind and body, which, for them, seemed utterly problematic. For Juhos and for all logical positivist, however, this was hardly a problem, for they adopted a broadly Humean conception of causation¹⁴ – hence, for them, the metaphysical parallelist solutions to the problem of psychophysical interaction were otiose.

The empirical-cum-logical approach holds that whenever there is a “mental” event, there is also an adjoining “physical” event, and these two are *independent* from each other, in the following sense. It is an *empirical* fact, that certain types of “mental” events are co-instantiated with certain types of “physical” events: it could be otherwise, and it is the task of empirical science to discover the correlations between the “mental” and the “physical” events.

According to the purely logico-linguistic view, when it seems that there are two independent “mental” and “physical” processes paralleling each other, there is, in fact, only one process, which may be described in two languages, either in “physical”, space-time language, or in “mental”, phenomenal language. The sentences describing “mental” and “physical” phenomena may be translatable into each other; if a mental sentence is translatable into a physical sentence (or a set of physical sentences), then the content of the mental and the physical sentence(s) is identical.

According to the empirical-cum-logico-linguistic view, the issue whether certain mental phenomena are related to certain physical (i.e. brain or behavioral) phenomena has *both* empirical *and* logico-linguistic aspects. The empirical task is to find out whether for an observed series of mental events (i.e. a series of Konstatierungen), there exist another parallel series of events – which may turn out to be “physical”. The logico-linguistic

14 Gustav Bergmann writes: “as long as one sticks to cautious generalities all Logical Positivist could still agree that they (a) hold Humean views on causality and induction (...)”. (in: “Logical Positivism”, in: Vergilius Ferm (Ed.), *A History of Philosophical Systems*. New York: Philosophical Library 1951, pp. 471-82. Reprinted in: Gustav Bergmann: *The Metaphysics of Logical Positivism*. Westport, Conn.: Greenwood Publishers 1954, p. 2.

issue is to find out whether the series parallel with the observed “mental” series is “physical”, or not.

According to the purely logico-linguistic view, *there is no empirical issue* concerning the relation between the mental and the physical, as *the meaning* of mental sentences is identical with the meaning of certain physical sentences. For example, according to the logical behaviorist version of the purely logico-linguistic view, the content of “Mr. N. has a red sensation” is Mr. N.’s body is in a red sensing state. Hence no empirical issue could arise whether N’s having red sensations, i.e. a “mental” state, is conjoined with a “physical” state, namely N’s body being in a red-sensing state. For N.’s having a red sensation *means* that N’s body is in a red-sensing state, thus there is no logical possibility such that N has a red sensation but N’s body is not in a red-sensing state.

The main difference between the empirical-cum-logico-linguistic and the purely logico-linguistic view is that the former accounts for parallelism as there being two *independent* series of observed events between which certain empirical relations may hold (or may not), while according to the latter, the issue whether such an empirical relation exists or not, cannot arise. This question cannot even be formulated meaningfully, since the meaning¹⁵ of a mental sentence is identical with the meaning of the physical sentences into which it can be translated, hence one cannot formulate the question of how the mental and the physical series are related.

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In the first part of the 1930s, there was an ongoing debate about a series of interrelated issues in the Vienna Circle, including the correct account of protocol sentences, whether they should be physical or phenomenal, whether they are incorrigible, etc.; the – related – issues concerning the correct notion of truth; the criteria of empirical meaningfulness; and so on. For my purposes, i.e. to illuminate Juhos’ view on the psychophysical problem, it is revealing to treat the protocol sentence debate as a part, or an aspect of the physicalism debate. It is clear why: the doctrine of physicalism is fundamental for the interpretation of the protocol sentences and of the psychophysical relation as well; they both turn on whether physical language should and could be the universal language of sciences.

15 The cognitive or empirical meaning, the emotive and the pictorial meaning is another issue.

The Physicalism Debate: Its Origin and the Main Issues

The doctrine of physicalism in the logical positivist movement may be characterized by two tenets: (i) physical language is the universal language of science, (ii) all scientific laws and explanations can be reduced to physical laws and explanations. The former was accepted by all physicalists, the latter was much more controversial.¹⁶ Here I only deal with (i), the language thesis.

Physicalism, as it is well-known, was put forward first by Neurath, but quickly adopted by Carnap as well.¹⁷ The doctrine had several formulations and aspects, and grew out, partly at least, from the opposition to Carnap's *Aufbau* idea, according to which the constructional system of scientific concepts should be based on private experience (or more precisely, on the recollection of similarity of experiences (*Ähnlichkeitserinnerung*)).¹⁸ There are, of course, several interpretations of the aims of the *Aufbau*-programme, as well as of its failures,¹⁹ but these need not concern us here. What is of interest for us now, and that is fairly uncontroversial, that one of the major objections against the *Aufbau* was that its constructional system cannot provide for the intersubjectivity of the meaning of scientific

16 For example, Carnap, still in 1963, considered it only as a hypothesis, not sufficiently grounded as yet (see his "Intellectual Autobiography", in: Paul A. Schilpp (Ed.), *The Philosophy of Rudolf Carnap*. La Salle: Open Court 1963, pp. 1-84., and "Reply to Feigl", *ibid.* pp. 859-60.); Neurath definitely rejected it.

17 For a detailed history, see Thomas E. Uebel, *Overcoming Logical Positivism from Within. Neurath in the Vienna Circle's Protocol Sentence Debate*. Amsterdam-Atlanta: Rodopi 1992. Focusing on Wittgenstein's claims to priority and the "plagiarism issue" with Carnap, see Jaakko Hintikka, "Ludwig's Apple Tree: On the Philosophical Relations between Wittgenstein and the Vienna Circle", In: Friedrich Stadler (Ed.), *Scientific Philosophy: Origins and Developments*. Dordrecht: Kluwer 1993, pp. 27-46.

18 Neurath's motivation for physicalism were manifold, and the issue of protocol sentences was just one among them. However, for our topic, i.e. the debate between a Schlickian/Juhosian "phenomenalist/parallelist" and the Neurathian/Carnapian physicalist/logical behaviorist approach to the psychophysical relation, the fundamental issue concerning physicalism is the meaning of mental sentences, on which the phenomenologists ("empiricists") and physicalists radically disagreed.

19 As e.g. the debate between the empiricist and the Kantian interpretations.

concepts.²⁰ It is also clear that choosing a physicalist base *eo ipso* solves this problem, physical concepts being intersubjective by definition.

To see the connections between Carnap's and Neurath's physicalism and the debate on the psychophysical problem, I shall characterize physicalism somewhat more extensively. It is well-known that the physicalist doctrine, from its inception in 1929 or 1930²¹ underwent several changes. Here I present what may be seen as the full-blown radical physicalist/logical behaviorist view of Carnap.²²

(UnivPhys) Physical language is the universal language of science.

(UnivPhys1) The meaning of phenomenal sentences is identical with the meaning of some physical sentences. (In material mode: phenomenal sentences refer to physical (bodily/behavioral) states.)

(UnivPhys2) The observational base sentences (protocol sentences) are also physical sentences.

(AntiFund) There are no incorrigible (non-hypothetic) observational sentences. Protocol sentences are also corrigible, they can be rejected.

(Intersubjectivity) Physical language is the only intersubjective language.

(Syntacticism) For a statement to be scientific, it must be possible to formulate it in the formal mode.

Carnap's early view was different, as presented in his "Physikalische Sprache",²³ where he still held that protocol sentences are incorrigible and to be formulated in phenomenal language. This early view was already criticized by the phenomenologists side, namely by Duncker and Zilsel.²⁴ But it was also criticized "from the left", by Neurath. Carnap accepted Neurath's criticism, and radicalized his physicalism: he claimed that protocol

20 Put forward by Neurath and also by Neider. Cf. e.g. Uebel, *op. cit.* pp. 93-96.

21 See e.g. Uebel *op. cit.*

22 See Rudolf Carnap "Psychologie in physikalischer Sprache", in: *Erkenntnis* 3, 1932/33, pp. 107-142.

23 Rudolf Carnap "Die physikalische Sprache als Universalsprache der Wissenschaft", in: *Erkenntnis* 2, 1932, pp. 432-465.

24 See Karl Duncker, "Behaviorismus und Gestaltpsychologie. Kritische Bemerkungen zu Carnap's 'Psychologie in physikalischer Sprache'", in: *Erkenntnis* 3, 1932/33, pp. 162-176., and Edgar Zilsel, "Bemerkungen zur Wissenschaftslogik", in: *Erkenntnis* 3, 1932/33, pp. 143-161.

sentences are also physical sentences, and that there were no incorrigible observational sentences at all.²⁵

In reply to the radical physicalist doctrine, Schlick published his “Über das Fundament der Erkenntnis” (in 1934), in which he attacked primarily the coherentist theory of truth suggested by Neurath. In the same issue of the *Erkenntnis* appeared Juhos’ first contribution to the debate, his “Kritische Bemerkungen zur Wissenschaftstheorie des Physikalismus”. The next important move was the publication of Neurath’s “Radikaler Physikalismus und ’wirkliche Welt’” in the end of 1934, in which he attacked Schlick’s ideas put forward in the “Fundament” article. Schlick found Neurath’s paper absurd, and did not intend to reply directly to Neurath at all. In early 1935, however, also Hempel published a paper, “On the Logical Positivists Theory of Truth”, in which he supported Carnap’s és Neurath’s physicalism, and criticized Schlick’s “Fundament” article, as well as Juhos’ “Kritische Bemerkungen”. To this paper both Schlick and Juhos answered, with “Facts and Propositions” and „Empiricism and Physicalism” respectively (both in 1935). Hempel replied to Schlick with “Some Remarks on ’Facts and Propositions’” (June, 1935), and to Juhos with “Some Remarks on Empiricism” (January, 1936). Schlick’s counter-reply was “Sur les ’Constatation’” (in the end of 1935), Juhos’ “Some Modes of Speech of Empirical Science” (June, 1936).²⁶

25 See his “Psychologie in physikalischer Sprache”.

26 Otto Neurath, “Radikaler Physikalismus und ’wirkliche Welt’”, in: *Erkenntnis* 4, 1934, pp. 346-362. Moritz Schlick, “Über das Fundament der Erkenntnis”, in: *Erkenntnis* 4, 1934, pp. 79-99.; “Facts and Propositions” in: *Analysis* 2, 1935a, pp. 65-70.; “Sur les ’Constatations’”, in: *Sur le fondement de la connaissance (Actualités Scientifiques et Industrielles, No. 289.)*. Paris: Herman et Cie 1935b. English transl.: “On Affirmations”, in: Henk L. Mulder, Barbara F. B. van de Velde-Schlick (Eds.), *Philosophical Papers Vol. II, 1925-1936*, Dordrecht and Boston: Reidel 1979, pp. 407-413. Carl G. Hempel, “On the Logical Positivists’ Theory of Truth”, *Analysis* 2, 1935, pp. 49-59.; “Some Remarks on ’Facts and Propositions’”, *Analysis* 2, 1935, pp. 93-96.; “Some Remarks on Empiricism”, *Analysis* 3, 1936, pp. 33-40. For the publication data of Juhos’ papers, see note 3.

Juhos' Account: Description and Evaluation

As already mentioned, the issue connecting physicalism and the psychophysical problem is whether physical language could and should be the universal language of science, i.e. whether the mental language is part of the physical language, or not. If the physicalist language thesis should be rejected, as Juhos argued, then the physicalist approaches to the psychophysical relation have serious problems: Carnap's logical behaviorism of the early 1930s ought to be discarded.²⁷ In the following, I will sketch Juhos' own view on the meaning of mental (phenomenal) terms and his arguments against the Carnapian view that mental sentences are content-identical with physical sentences.

Juhos' account of the psychophysical relation and of the meaning of mental sentences (both protocol and system sentences) are rather close to Schlick's, which he proposed in the 1930s,²⁸ and also to Carnap's earlier views put forward in the *Aufbau*.

Carnap's *Aufbau*-view may be summarized as follows. (i) As for the base language: the constructional base is phenomenal, i.e. the content of the basic observation sentences are the subject's experiences. (ii) Concerning the psychophysical relation, a constructional and a metaphysical problem ought to be distinguished. As for the former: according to the parallelist assumption, when there is a series of observations (Konstatierungen) of mental events (e.g. representations of sounds, imagining a melody), a parallel series of observations (Konstatierungen) may always be made (namely, visual experiences of certain brain events). The constructional problem is to show that the elements of the parallel series are such that they allow for the construction of "physical" events. The metaphysical problem concerns the nature of the relation between the two parallelly observed series: whether they are representations of one

27 And also other physicalist views, some Vienna Circle members put forward, e.g. the consciousness-brain identity theory of Feigl. I shall discuss this later.

28 Cf. Schlick 1934, Schlick 1935a, Schlick 1935b, and "De la relation entre les notions psychologiques et les notions physiques", in: *Revue de la Synthèse* 10, 1935, pp. 5-26. English transl.: "On the Relation between Psychological and Physical Concepts", in: Herbert Feigl and Wilfrid Sellars (Eds.), *Readings in the Philosophical Analysis*. New York: Appleton-Century-Crofts 1949.

and the same process (as according to neo-Kantianism), or they are two different sort of processes (dualism). Now, this question is meaningless according to the *Aufbau*, for it cannot be formulated meaningfully: one cannot construct the notion of the relation between the two series.

Juhos presents a view rather close to this Carnapian approach. In fact, Juhos' view is in certain respects closer to the *Aufbau*-conception than to Schlick's position in the 1930s.²⁹ Schlick then held that the parallel mental and physical observations are the observations of the same process. This is a contingent fact, however, which could be otherwise. Now, on the one hand, this goes clearly against Carnap's logical behaviorist physicalism, according to which it is of logical (or linguistic) necessity that the observations of mental events are *ipso facto* observations of physical events, since the content of a mental report is the same as of some physical reports: mental reports are about physical (brain or behavioral) events. Hence, according to logical behaviorism, it is *not* a contingent fact, that the observational content of physical and mental series is the same. Juhos accepted the contingency claim, so in this respect he followed Schlick. But on the other hand, Schlick's account of the 1930s was not so entirely ametaphysical, as the *Aufbau*, and also Juhos, aimed to be. It echoed Schlick's earlier pre-positivist (critical-realist) view on the psychophysical problem, which, according to the *Aufbau*, was a scientifically meaningless metaphysical view just as well. On this latter issue Juhos seems to be closer to Carnap's *Aufbau*-view than to Schlick.

Now, Carnap's radical physicalist/logical behaviorist view in the early 30s, which Juhos criticized, may be summarized as follows.³⁰ (i) As for the base language: the protocol sentences are also physical sentences. Hence protocol sentences are also corrigible, not immune to error. (ii) As for the psychophysical relation: there is only one type of events that may occur in observation. The sentences describing observations are physical sentences, the meaning of a mental report is identical with the meaning of physical reports: for example, "Mr. N. senses red" means that Mr. N.'s body is in a red-sensing state. The question concerning the nature of the psychophysical relation is senseless, of course, but for a different reason, as in the *Aufbau*. It is senseless to ask what is the relation between

²⁹ Ibid.

³⁰ See "Psychologie in physikalischer Sprache".

the reference of certain mental terms and physical terms, if they are *by stipulation* the same. (And, it is also senseless to claim that they are identical in the metaphysical sense, viz. that a metaphysical identity relation holds between them.)

Juhos argued both against (i) and (ii). Let's see them in turn.

Juhos' Arguments Against the Physicalist Account of Protocol Sentences

Juhos took over some of Schlick's argument, for example the following.

(1) Knowledge must have an indubitable foundation, the coherentist account of knowledge (proposed e.g. by Neurath) is untenable.³¹ Hence the sentences describing the basic observations, which ought to provide the foundations of empirical knowledge, cannot be physical sentences, for physical sentences are corrigible, one may err about the content of a sentence describing some physical state of affairs. Hence, they cannot serve as the indubitable foundation of knowledge.

(2) The physicalist wing of the Circle (Neurath, Carnap) and also Popper put forward arguments against the Konstatierung-account of protocol sentences (or base sentences, in Popper's terminology), presented by Schlick. Juhos provided some counterarguments and tried to develop Schlick's account somewhat further.

(2.1) One of Neurath's major objections against the idea, that empirical knowledge should be based on Konstatierungen, was, in contemporary terminology, that propositions may only be justified by propositions; they cannot be justified by experiences. Schlick sketched an answer in "Facts and Proposition", which were modified and developed further in "Sur les 'Constatations'".

(2.2) Another important objection, which can be directed both against the phenomenal account of protocol sentences and mental sentences in general, is that on such an account they have no intersubjective meaning – and this is a fatal weakness, since the meaning of scientific concepts ought to be intersubjective.³²

31 See Schlick's "Über das Fundament der Erkenntnis".

32 The objection was first proposed by Neurath against the base-choice of the Aufbau, i.e. that the constructional system starts from experiences.

Juhos' answer drew on Schlick's. The upshot of these arguments is that the content of experiential reports may be intersubjective, even if we understand them as referring to experiences, not to bodily states. (I shall come back to this later).

Juhos' Arguments Against the Physicalist Account of Mental Sentences in General

I shall consider three objections of Juhos against the physicalist account of mental reports, which may be dubbed as the argument from standard use, the argument from ignorance, and the argument from corrigibility.³³

The Argument from Standard Use

According to this argument, the physicalist/behaviorist interpretation of sensation terms is contrary both to everyday and to scientific usage. We just do not use sensation terms as if they referred to behavioral or brain states, neither in everyday parlance, nor in scientific psychology. Now, this objection is easy to meet on Carnapian or Neurathian grounds. Presumably, their answer would have been that 'folk' and actual scientific use of mental terms is irrelevant, for the criterion of cognitive significance is normative, not descriptive. If one is to make real scientific psychology, one ought to use an intersubjective nomenclature; psychological theories the content of which cannot be formulated with intersubjectively understandable notions, ought not to be considered as scientific theories at all.

The Argument from Ignorance

The argument from ignorance is harder to disarm. According to this objection, if the physicalists are right about the meaning of mental reports, then in most (or all) cases we do not know what mental states we are in. For example, in most cases people do not know whether they are in pain or not, because in most cases they do not know the physical (behavioral or neural) states in which they are when in pain. Hence they do not know

Though Carnap was at pains to provide for the intersubjectivity of the concept-system of the Aufbau, he was not successful. Cf. note 20.

³³ See "Physicalism and Empiricism".

whether the state they are in is a pain state, or not.³⁴ Now, this sounds rather counterintuitive.

There may be several counter-strategies. First, one might bite the bullet, and say that *it is true*, that we never know what mental state we are in, it is only an illusion that we do. For the real psychological state types are behavioral or brainstate types, which are not accessible to introspection. (This does not mean to deny that there are sensations, only that they are not types which can be identified solely by having them, or introspecting them.) There are many ways to spell out such a view, but Schlick and Juhos surely did not accept it anyway: their account of the Konstatierungen embraces the idea that we *can* identify our sensations (or at least the simple ones) just by having them, (we cannot even be mistaken about them, when having them). So here we are at a dialectic stalemate.

It might seem that there is a plausible strategy to counter the argument from ignorance, which can be reconciled with physicalism - though it fits the mind-brain identity theory version of physicalism better than logical behaviorism. Among the logical positivists, Schlick advocated an identity-thesis e.g. in his “De la relation entre les notions psychologiques et les notions physiques”, and also Feigl proposed a similar view in his “The ‘Mental’ and the ‘Physical’” (1958), and in “Mind-Body *not* a Pseudo-Problem” (1960).³⁵ Smart in his “Sensations and Brain Processes” (1959),³⁶ the manifesto of consciousness-brain identity theory (*aka* central state materialism), replied to the argument from ignorance relying on Frege’s sense/reference distinction. According to this proposal, certain mental and physical terms have different senses, but nevertheless refer to the same entity, as e.g. “pain” and “c-fiber firing” (similarly as

34 Ibid.

35 An important difference being that Feigl’s view was emphatically a metaphysical view. See Schlick, “De la relation entre les notions psychologiques et les notions physiques”; Herbert Feigl, “The ‘Mental’ and the ‘Physical’”, in: Herbert Feigl, Michael Scriven and Grover Maxwell (Eds.), *Minnesota Studies in the Philosophy of Science*, Vol. II. Minneapolis: University of Minnesota Press 1958, pp. 370-497., and “Mind-Body, not a Pseudo-Problem”, in: Sydney Hook (Ed.), *Dimensions of Mind*. New York: New York University Press 1960, pp. 24-36.

36 Jack J. C. Smart, “Sensations and Brain Processes”, in: *The Philosophical Review*, 1959/2, pp. 141-156.

“Morningstar” and “Eveningstar”). If this is so, then we may counter the argument from ignorance by saying that we know in what state we are in *under one description* (i.e. under an experiential description), but we do not know this under another (i.e. under a neural description). (It should be mentioned that the sense/reference distinction in defence of the consciousness-brain identity theory was also used by Feigl (and others) much earlier: already in Feigl 1950³⁷ he refers to Frege’s example of the identity of the Morning Star with the Evening Star as analogous with the identity of sensations with brainstates.)³⁸

I think, however, that such a strategy to establish the identity of consciousness with brainstates is unlikely to succeed, for the following reason. If we hold, as the “right wing” of the Circle certainly did, that sense-qualities or qualia are constitutive of sensations (as e.g. the painfulness of pain), then this at least a dualism of properties follows. For clearly, the quale of pain, the *property* of painfulness, cannot be identical with the *property* of being a c-fiber firing. (Except if we adopt a structuralist view of physical terms of some sort, according to which physical terms refer to dispositional, not to categorical properties. In this case, it is *prima facie* conceivable that the categorical base of certain physical – dispositional – properties are certain qualia; thence certain physical terms (e.g. “c-fiber firing”) select the same categorical property to which sensation terms (“pain”) refer. Similar views were also present in logical positivism: Schlick’s early account of physical theories was a version of structuralism. Russell’s view in his *Analysis of Matter* (1928) and also in *Human Knowledge* (1948) was also structuralist; in the latter, he explicitly combined it with a consciousness-brain identity theory.)³⁹

37 Herbert Feigl, “The Mind-Body Problem in the Development of Logical Empiricism”, in: *Revue Internationale de Philosophie* 11, 1950, pp. 64-83.

38 It should also be emphasized that such an answer is clearly not in the vein of Carnap’s and Neurath’s view of the early 1930s. At that time Carnap was still before his “semantic turn”, he formulated his intension/extension distinction later. Thus, he would not have accepted a view which relies on something like the concept of the Fregean sense.

39 Cf. Moritz Schlick, *Allgemeine Erkenntnislehre*. Berlin: Springer, 1918. Bertrand Russell, *The Analysis of Matter*. London: Kegan Paul, Trench, Trubner 1927, and *Human Knowledge. Its Scope and Limits*. London: Allen and Unwin 1948. Feigl also drew attention to the similarities between these Russellian and Schlickian views; see his “Russell and Schlick: A Re-

It should also be noted, however, that Smart's conception was different. He analysed the meaning of "pain" by reference to the characteristic stimuli which cause pain (and later, following Armstrong, the causal role of pain). Such a view does not have to face directly the problem for Feigl (namely that it leads to property-dualism), but only on pain of leaving out the experiential aspect of pain from the meaning of "pain" altogether, which is rather counterintuitive.

So, I think, Juhos' argument from ignorance does not allow for such an easy answer, as it might first seem.

The Argument from Corrigibility

The argument from corrigibility deserves deeper scrutiny, so I shall discuss it at some length. First I shall present Juhos' argument from corrigibility against the physicalist interpretation of sensation reports, Hempel's replies to Juhos, and Juhos' counter-replies. Then I shall discuss a close kin of Juhos' objection, put forward by Kurt Baier against the consciousness-brain identity theory, some 30 years later. I shall go into some details and show that the Juhos-Baier argument is directly relevant to some contemporary views and debates on the consciousness-brain relation, and also that, the many diverse strategies to disable it notwithstanding, a strong case can be made for this argument.

Juhos' argument from corrigibility against Neurath's and Carnap's physicalistic interpretation of sensation reports, may be summarized as follows. The physicalistic interpretation of sensation reports (e.g. that the meaning of "Mr. N. has pains" is that Mr. N.'s body is in a painstate) implies that honest reports of someone's own sensations can be corrected by external observers. This is absurd, according to Juhos. For think about the absurdity of a situation, when I reassure someone who honestly complains that he is in pain, by saying: "Cheer up, you are mistaken, you have no pains. I checked your nervous system!"⁴⁰

Hempel, in his "Some Remarks on Empiricism" came up with two answers to Juhos' argument. He claimed that (i) someone may lie about his sensations, and this report can be corrected by observing the person's

markable Agreement on a Monistic Solution of the Mind-Body Problem", in: *Erkenntnis* 9, 1975, pp. 11-34. However, there are other grave problems for such views, which I cannot discuss here.

40 See Juhos, "Empiricism and Physicalism" p. 85.

bodily states and behavior. Even if one claims that he has no pains when putting his hand into the flames, the observation of his bodily states and behavior may tell against him, and such evidences are surely legitimate grounds to correct someone's reports. (ii) He also put forward cases of corrigible judgements about one's own mental states. For example: I may believe honestly that "I change my political party out of conviction", or that "I have not got the least desire for material advantages". But, in fact, I am mistaken: unbeknownst to me, I had some other motivations for changing my party, e.g. to please a person, who is important for me, or something else; or I do desire material advantages, I just suppress or conceal this desire so successfully, that I do not realize it.⁴¹

Juhos' answers were the following.⁴² As for (i): lying is irrelevant. Of course, dishonest reports can be falsified by contrary behavioral evidence. But the relevant issue is whether someone could err about his own mental states in his *honest* reports. The cases mentioned in (ii) are honest reports. However, Juhos claims, the logic of simple sensation statements differs from the logic of the statements Hempel cites. The latter are about unconscious motives, which are not directly given. First person sensation reports, as e.g. "I feel pain", are such that understanding them by the subject simply allows him to know whether they are true or not. This is not the case, however, in Hempel's examples: the fact that someone understands what it means that one has a certain unconscious motive, e.g. understands the statement "I desire material advantages unconsciously", does not imply that he knows whether the statement is true or not.

Now, we shall elaborate the argument somewhat further. It is noteworthy that Kurt Baier put forward basically the same argument (as his original) against Smart's consciousness-brain identity theory in 1962 (in his "Pains" and "Smart on Sensations").⁴³ I shall present Baier's argument, and see Smart's answers to it as well. This is interesting for us, because these answers can be targeted against Juhos' original argument as well; hence seeing how they fair is important for adjudicating Juhos' position.

41 See Hempel, "Some Remarks on Empiricism", p. 36.

42 Cf. Juhos, "Some Modes of Speech of Empirical Science", p. 68.

43 Kurt Baier, "Pains", in: *Australasian Journal of Philosophy* 40, 1962, pp. 1-23, and "Smart on Sensations" in: Clive Vernon Borst (Ed.), *The Mind/Brain Identity Theory*. London: Macmillan 1970, pp. 95-106.

Baier's argument may be summarized as follows.

- (1) A. honestly judges that he is in pain (he feels pain).
- (2) B. observes that A. is not in the bodily/behavioral state which is characteristic of being in pain.

Hence

- (C) B. legitimately concludes, that A. has no pains, i.e. B. can legitimately correct A's own judgement about his being in pain.

Smart had two answers to this argument.⁴⁴ According to the first, the "it will never happen" answer,⁴⁵ (1) and (2) are never actually true together, hence the conclusion does not follow. Smart first granted that if such a case were actually true, this would refute his consciousness-brain identity theory.⁴⁶

Now, my objection to Smart is that it is irrelevant whether (1) and (2) ever *actually* happens, viz. whether it is ever actually true that someone honestly judges that he feels pain, but his body is not in the bodily/behavioral state which is characteristic of being in pain. For the *possibility* of such a case ((1) and (2) being true together) is sufficient for the argument to go through. And Smart (and the logical positivists as well)⁴⁷ allowed for such a possibility. To see this, we may alter Baier's argument as follows.

- (1 and 2)' It is *possible* that A. honestly judges that he is in pain (feels pain) and B. observes that A. is not in the bodily/behavioral state which is characteristic of being in pain.
- (3) If A. is incorrigible about his being in pain, then if he judges honestly that he is in pain, then he is necessarily in pain. So it is *impossible* that A. judges honestly that he is in pain, but he is not in pain.
- (4) If A. is incorrigible about his being in pain, and if his pain state is

44 Cf. Smart: "Brain Processes and Incorrigibility", in: Clive Vernon Borst (Ed.) *The Mind/Brain Identity Theory*. London: Macmillan 1970, pp. 107-109.

45 Ibid.

46 Ibid.

47 To see this, it is enough to turn to Schlick's and Juhos' argument for the intersubjectivity of the meaning of sensation terms. They argue that it is (logically) possible that pains are not correlated with the bodily states they are actually correlated with: they may correlate with some states of another body, or with no bodily state whatsoever. I shall discuss this later.

identical with a bodily state of his, then he is also incorrigible about his being in that bodily state. Hence it is *impossible* that A. judges honestly that he is in pain, but A. is not in the bodily state characteristic of being in pain.

(5) So *if* it is *possible* that (1) and (2) are true together, then

either

(C1) A.'s bodily state characteristic of being in pain is not identical with pain,

or

(C2) A. is not incorrigible about his being in pain.

Hence, it is irrelevant whether (1) and (2) are ever actually true together, for (C1) or (C2) follows solely from the possibility of (1) and (2) being true together.

Smart's other reply was that we *are* corrigible about our own sensations. His rather sketchy argument was the following. It is *arbitrary* or *artificial* to make the sincerity of someone's reports of his own states the criterion of its correctness. For such a move, Smart claims, "would ensure that a man who sincerely reported a bruised toenail had a bruised toenail" (and, of course, this is false). However, it is clear what Juhos could have answered: "I have a bruised toenail" is a hypothetical-empirical statement, not a nonhypothetic-empirical one. Hence the sincere assertion of the statement "I have a bruised toenail" need not and does not imply that the statement is true – in line with Juhos' theory.

Against Incorrighibility

Now, the question of the corrigibility or incorrigibility of first-person sensation reports is a many-faceted issue, with many arguments and aspects Juhos was in no position to consider in the mid-1930s. As an illustration, here are some argument-types or argumentative directions to the point that we have no incorrigible knowledge about *any* sort of sensations of ours.

(a) *An experience cannot justify a proposition or a belief*, propositions or beliefs can only be justified by other propositions or beliefs (Neurath, Sellars, Bonjour, Davidson, McDowell). Hence the idea of having incorrigible knowledge about our sensations is untenable, it rest on a conceptual

confusion. As we may put it: there cannot be incorrigible beliefs about our sensations, which would be justified just by having the sensations, for *no* belief whatsoever could be justified just by having experiences.

(b) *Wittgenstein's challenge*. Incorrigible knowledge is a contradiction in terms: one cannot *know*, what one is incorrigible about.

(c) *The identification of any sensation relies on external factors*, external objects (e.g. the characteristic stimuli of the sensations), or the linguistic communities' use of the sensation term, to which we may have no access. Hence we are not incorrigible about our own sensations.

Now, I shall sketch some answers to these arguments which may be related to Juhos' position.

1. *Against (a): Experience can justify beliefs/propositions*

The inconsistent triad (Sellars)

Sellars put forward the so-called inconsistent triad argument, aiming to show that experience cannot justify beliefs.⁴⁸ Accordingly

A. *x senses red sense content s* entails *x non-inferentially knows that s is red*.

B. The ability to sense sense contents is unacquired.

C. The ability to know facts of the form *x is F* is acquired.

A and B together entail not-C; B and C entail not-A; A and C entail not-B. (Sellars, *op.cit.*, section 6).⁴⁹

Chalmers⁵⁰ answers the following: we can deny A. Having an experience of red sense content by *x* does not entail that *x non-inferentially knows that s is red*. For

(i) Knowledge is to be analysed in terms of belief.

48 See Wilfrid Sellars, "Empiricism and the Philosophy of Mind", in: Herbert Feigl and Michael Scriven, (Eds.), *Minnesota Studies in the Philosophy of Science, Volume I: The Foundations of Science and the Concepts of Psychology and Psychoanalysis*. Minneapolis: University of Minnesota Press 1956, pp. 253-329.

49 Here I follow Chalmers' brief reconstruction of Sellars' argument, see David Chalmers, "The Content and Epistemology of Phenomenal Belief", in: Quentin Smith and Aleksandar Joki? (Eds.), *Consciousness: New Philosophical Perspectives*. Oxford: Oxford University Press 2003, pp. 220-272.

50 Chalmers *ibid.*

- (ii) But having an experience does not imply having any beliefs.
- (iii) However, *if* a (first person present tense phenomenal) belief accompanies the having of the relevant experience, this belief is justified just by having this belief.

*The justificatory dilemma (Bonjour, Davidson, McDowell)*⁵¹

We may reconstruct the justificatory dilemma as follows:

- (1) There can be no *inferential* relation between a nonconceptual experience and a belief, as inference requires connections within the conceptual domain.
 - (2) But a mere *causal* relation between an experience and a belief cannot justify the belief.
- hence
- (3) Nonconceptual experiences cannot justify beliefs.

According to Chalmers,⁵² we may accept (1) and (2). But we needn't accept (3), for there is an alternative form of justification: not justification by inference and not justification by causation, but justification by (partial) constitution. According to this, the content of the belief *I sense red now*⁵³ (or *There is redness now*) involves/is constituted (partly) by the presence of an instance of phenomenal redness. So if I am able to form a genuine belief *I sense red now*, this implies that an instance of phenomenal redness is present. (This is a special feature of phenomenal concepts/belief. Cf. e.g. the belief *I sense water*. Arguably, its content is *I sense H₂O*, hence it is possible to have the honest belief *I sense water*, and be mistaken about it; namely, in cases when I have a watery experience, which was caused not by H₂O, but by something else, e.g. XYZ.)

Now, the Schlick-Juhos view is analogous with Chalmers' in important respects. Juhos' formulation is the following: if I make an hon-

51 See Lawrence Bonjour, "Can Empirical Knowledge Have a Foundation?", in: *American Philosophical Quarterly* 15, 1978, pp. 1-13.; Donald Davidson, "A Coherence Theory of Truth and Knowledge", in: Ernest Lepore (Ed.), *Truth and Interpretation: Perspectives on the Philosophy of Donald Davidson*. Oxford: Blackwell 1986, pp. 307-19.; John McDowell, *Mind and World*. Cambridge Mass.: Harvard University Press 1994.

52 Chalmers op. cit.

53 Belief-contents are marked by italics.

est Konstatierung-statement, e.g. "There is pain", correctly, (i.e. in accordance with Schlick's and Juhos' meaning theory, using the word "pain" as referring to a painful state), then the statement cannot be false. Hence *the correct making of an honest Konstatierung-statement justifies its content*. Somewhat more detailed: the meaning of empirical statements are their truth conditions. In the case of empirical-hypothetical statements ("There's a table in the next room"), the truth conditions coincide with the verification conditions (if you go to the next room you will have a table-formed such and such coloured visual experience). In contrast, empirical-nonhypothetical statements, i.e. Konstatierung-statements ("There is pain") refer *directly* to their truth conditions. There is *no verification procedure*. *Having* the experience *directly justifies* the Konstatierung-statement. In other words: asserting sincerely and correctly a Konstatierung-statement implies that it is true.

2. Against (b): *Incorrigible knowledge is not contradiction in terms*

1. Against Wittgenstein's challenge, we may argue in a way which seems to me consistent with Juhos' and Schlick's position. We can accept the Wittgensteinian point that an utterance of a sentence has no meaning if there is no criterion which determines whether it is true or false (i.e. if there is no way to distinguish a correct application of a sentence from an incorrect one). But we may hold that the *incorrigibility* of simple sensation reports (e.g. "I feel pain"), does not imply that there is no criterion which tells whether such reports are true or not.

Remember how Juhos and Schlick accounted for such Konstatierung-statements. I can make such a Konstatierung-statement correctly viz. using the word "pain" in the Konstatierung-sentence with its proper meaning), only if I have the sensation to which the word "pain" refers to, viz. pain. Otherwise the content of my statement is different. Remember: this is not the case usually. I can make an utterance "I sense water" using word "water" with its proper meaning, without there being water in my neighborhood, (there may be watery stuff around instead). So *there is* a criterion of the truthfulness of "I feel pain". It is true only if I formulate the statement using the correct concept of pain. However, if I formulate the statement correctly, then the statement is incorrigibly true. (But it is possible that I do not formulate it correctly: then the meaning of that statement differs.)

So, if we accept that there are sensations with a directly given phenomenal nature, and sensation words refer directly to these, then we may have a set of examples of incorrigible but nevertheless meaningful judgements, namely certain sensation reports. Of course, there are many arguments against such an account of simple sensations and sensation words, including some of Wittgenstein, but that is a separate issue: Juhos and Schlick clearly held unto such an account.

2. A further argument may be built on Wittgenstein's challenge, namely the following. The possibility of making an error by misnaming (applying a wrong word to) a sensation, is necessary for the meaningfulness of "I know I am in pain". For if one cannot make a mistake by applying the word "pain" wrongly, then there would be no difference between the correct and incorrect use of "pain", which implies that "pain" has no meaning.

Some Wittgenstein interpretators, e.g. Rorty⁵⁴ carries on as follows. One cannot differentiate between false judgements originating from misnaming and originating from being mistaken about the nature of our sensation. Hence the distinction that one cannot err about the nature of his sensations, but can err by misnaming it, is senseless. However, the distinction is required for "pain" to have a meaning. Hence the word "pain" (as referring to some sensation) has no meaning, and the sentence „I know I am in pain" neither.

We may answer in the vein of Schlick and Juhos: it *is* possible to distinguish between error by misnaming and error by being mistaken about the nature of a sensation. *If* we accept that sensations have a directly given phenomenal nature, *then* the distinction is tenable. Wittgenstein's arguments (about need for a criterion) are neutral on this issue.

54 Richard Rorty, "Mind-Body Identity, Privacy and Categories", in: *The Review of Metaphysics* 19, 1965, pp. 24-54.

3. *Against (c): Externalism about phenomenal content is an open issue*

The argument from externalism against being incorrigible about our own sensations runs as follows. The identification of any sensations relies on external factors, either external objects, or the linguistic communities' use of the sensation term. Since we may have no access to these external factors from our first person perspective, we are not incorrigible about our own sensations.

Now, we may counter this objection by noting that Juhos was clearly not an externalist in the sense given here, and also that externalism about phenomenal content is an open issue even today. And, if externalism is not true, i.e. the content of an experience is exhausted by what is given to the experiencer in the first-person perspective, then one could only err about his own sensations either by *referring with a wrong name* to the sensation, or by *remembering falsely* that the actual sensation is the same type as another one experienced earlier: one could not err about *what sensation he has (i. e. what his sensation is like) now*. Hence the objection from externalism may be put aside.

The Arguments for the Intersubjectivity of the Meaning of Sensation Terms

Besides attacking the physicalist language thesis directly, Juhos also attempted to defend his position against the objection that the phenomenalist interpretation of mental sentences cannot provide for the intersubjectivity of mental language. He presented an argument to the point that the phenomenalist ("empiricist") account of the meaning of sensation terms is indeed intersubjective.⁵⁵ This claim sounds rather odd, but the proposed argument is interesting and worth discussing.

⁵⁵ It must be noted, however, that this argument was principally taken over from Schlick. See Schlick, "De la relation entre les notions psychologiques et les notions physiques", and "Meaning and Verification", in: *The Philosophical Review* 44, 1936, pp. 339-369. Kraft, in his official evaluation of Juhos' Habilitationsschrift (which appeared later as *Die Erkenntnis und ihre Leistung*) even criticized Juhos for not mentioning that this argument is credited to Schlick. In the book version, however, Juhos does refer to Schlick, saying that he provided a very similar argument.

In Juhos' reconstruction, the thesis to be proved is that the statement "I feel a pain (sensation)" is intersubjectively verifiable, which, according to him, amounts to saying that it is *logically* possible to verify it.⁵⁶ We may query right at the outset: why it ought to be *logically* possible to verify it? Why not empirically possible? Schlick's answer is briefly the following.⁵⁷ We do not and will not ever have indubitable knowledge of what is empirically possible, since empirical law-statements which constrain what is empirically possible, are only hypothetical. If the meaningfulness of a term depended on the empirical possibility of a certain state of affairs, we would never know for sure whether the term is meaningful or not – and this would be unacceptable. Hence we have to rely on the logical-conceptual possibility in demarcating the meaningful from the meaningless.

The intersubjectivity argument

We may accept this answer for the sake of argument, and turn to the master argument of Juhos and Schlick. The master argument starts with a discussion of the possible interpretations of "my pain" in the sentence "I can only feel my pain". Accordingly, we have two options, which we may call the solipsistic (S) and the nonsolipsistic (NonS) interpretation.

(S) Any experienced pain-sensation is necessarily my pain: pains are logically private.

or

(NonS) An experience of a pain-sensation is my pain, if it is coinstantiated with (the experience of) certain states of my body M.

According to (S), necessarily, I can only feel my pain. If I feel pain coinstantiated with certain characteristic (pain-)states of another person's, O's body, then I feel *my pain* in O's body, *not O's pain*. (NonS) allows

56 According to Schlick's and Juhos' usage, a sentence expresses a logically possible case, if it is consistent with the meaning of the terms forming the sentence, i.e. if it is not self-contradictory. On Schlick's and Juhos' phenomenalist reading, sensation terms refer solely to the phenomenal states, i.e. their meaning does not involve reference to any bodily state. Hence it is logically possible, i.e. it is not ruled out by the meaning of sensation terms, that sensations occur without a body, or that they are correlated not with the body of the subject of sensations, but with someone else's body.

57 See section III of Schlick's "Meaning and Verification".

for the logical possibility that an experience of pain-sensation is coinstantiated with (the experience of) certain states of O's body. This is to be understood as "I feel O's pain". (Similarly, it is logically possible that O feels my pain.) Hence, according to (NonS), "I feel my pain" is intersubjectively verifiable, since it is logically possible, that someone else also feels my pain.

Schlick and Juhos argue for the nonsolipsistic reading, claiming that the solipsistic reading is meaningless. Here is the core of their argument.

(1) According to (S), there is no difference between the meaning of "I feel my pain", "I feel pain" and "There is pain", because there is no logically possible situation in which they would describe different states of affairs.

(2) If there is no difference between the meaning of "I feel my pain", "I feel pain" and "There is pain", then "I" and "my" in "I feel my pain" are redundant, since it is logically impossible that it is *not me* who feels pain or that it is *not my* pain that I feel.

Hence

"My" and "I" do not have a meaning, they fall out.

thus

The solipsistic thesis "I can only feel my pain" is meaningless.

Therefore, we must accept interpretation (NonS). On the (NonS) interpretation of "my pain", "I feel my pain" is intersubjectively verifiable, since it is logically possible that someone else feels my pain. Hence "I feel my pain" has an intersubjective meaning, contrary to Carnap's and Neurath's claim.

So far, so good. However, even if we accept this argument against (S), we may wonder whether (NonS) is acceptable in itself. That is, what justifies positively the (NonS) interpretation? Schlick and Juhos held that it is the meaning, the "grammar" of "pain" that grounds (NonS). Accordingly, "pain" refers to pain-sensation exclusively, the concept of pain is independent of the concept of bodily states. But we may ask: what justifies this understanding of the meaning of "pain"?

My understanding of the Schlick-Juhos position is the following. In identifying a sensation as pain, we need not refer to any bodily state. The quale of pain can be identified directly, by acquaintance, i.e. "inwardly pointing" at it. There are several well-known objections to such a view, put forward by many, including Wittgenstein. For example, there

is one family of objections to the point that it is impossible to define the meaning of *any word* based solely on acquaintance. Another line of argument claims that the meaning of *sensation words* cannot be defined ostensively, for sensations cannot be intersubjectively “pointed at”, as they are private to their beholder. *Prima facie*, these objections seem question-begging against Schlick and Juhos, for according to them the content of Konstatierungen *can* be determined just by having the experience, i.e. ostensively, and sensations are not (logically) private. However, I will not address these issues here. Instead, I shall present an argument of mine, according to which the Schlick-Juhos interpretation of sensation terms is inconsistent.

2. My objection

For Juhos’ and Schlick’s argument for the intersubjectivity of sensation terms to go through, one has to make sense of the meaning of “my” (or “I”), i.e. the terms referring to the subject of pain in (NonS), which claim that “An experienced pain-sensation is *my* pain, if it is coinstantiated with (the experience of) certain states of *my* body M.” Now, it seems, that a person may be identified either

- (a) by the pain (or any other) sensations to which she has access (which she can feel), or
- (b) by her body.

However, a particular pain (or other sensation) of *yours* can only be felt by *me*, if *you* and *I* are distinguishable. Distinguishing between you and I may be done only by way of (a) or (b). If (a), then I cannot feel *your* pain, for any pain I could feel is mine, by definition. Hence (a) is out. If (b), however, then for the pain felt by me to be yours, it must be necessarily related to your body. But if (b), then in order to be able to feel your pain, I have to experience your and my body. Hence, it is a *precondition* of being able to feel *other’s* pain that we *have bodies* and that *we have separate bodies*.

So, it seems, there is a contradiction in the Schlick-Juhos view. On the one hand, according to their account of the meaning of “pain”, *someone’s pain* can be identified without referring to a particular body or bodily state. (Schlick claimed that the concept of a bodiless individual consciousness is coherent, so it must be possible to identify someone’s pain

without referring to any body or bodily state).⁵⁸ On the other hand, to make sense of “It is logically possible that I feel your pain”, we have to presuppose that when there are particular pains, (1) there are also individual bodies, and that (2) every pain is correlated with just one body in a special way (so that the changes in the pain-sensations are coordinated with the changes of that body's states exclusively). Now, if my argument is correct, then Schlick's and Juhos' attempt to show that the phenomenalist interpretation of the meaning of sensation terms is intersubjective, is defective. Hence, it seems, physicalism fairs better on this count.

Summary and conclusion

My purpose in this paper was to show Juhos' views on the psychophysical problem from the early 1930s onwards. These are intimately connected with his views on physicalism, hence I also tried to locate his role in the physicalism debate, and discussed his main arguments against the physicalist language thesis, according to which mental reports are content-identical with physical reports.

Now, as for the general results of my inquiry: it is not a very bald assumption that Juhos' positive views on the psychophysical problem, the “empirical-cum-logico-linguistic” phenomenalist approach, is hardly shared by anyone today. This fact may be explained by several factors (besides the obvious one, namely the almost complete ignorance of Juhos' work). One major factor is, I think, that his approach comprises of elements that have been rather unpopular ever since the demise of logical positivism. For example, he denied the meaningfulness of the diverse metaphysical views about the consciousness-body relation; maintained the possibility of logically constructing the concepts of physical objects out of sense experiences; held unto a strict analytic/synthetic distinction... In other words, he did not seem to react to changes even within the logical positivist movement, and stucked to a rigid (and, in retrospect, rather simplicistic) linguistic-ametaphysical framework, characteristic of the early days of logical positivism; he maintained this approach still in

58 Cf. Schlick “De la relation entre les notions psychologiques et les notions physiques” and also Virgil C. Aldrich, “Messrs. Schlick and Ayer on Immortality”, in: *The Philosophical Review* 47, 1938, pp. 209-213.

his book, *Erkenntnis und ihre Leistung*, published in 1950, and did not seem to alter it substantially even later. For this reason, one may hold that Juhos' views are deservedly neglected, they are interesting only from an historical point of view.

Be it as it may, I believe that Juhos' arguments against the physicalist language thesis do deserve more attention. I find Juhos' objections against physicalism important on their own, and it is also interesting, that they turned up again later, in a somewhat different context, namely in the debate about central state materialism in the 1950s and 1960s.

I argued that both the argument from ignorance and the argument from corrigibility is much harder to tackle, then it might first seem. The argument from ignorance cannot be answered simply by appealing to a Fregean sense/reference distinction, as most famously Smart proposed (among others, e.g. Feigl). The argument from corrigibility cannot be countered by Smart's replies, and I tried to show, that other strategies to dispel it, as e.g. Sellars', Bonjour's, Davidson's, or McDowell's arguments, may be rejected as well, relying on a conception of sensation terms and phenomenal judgements similar to Juhos' and Schlick's theory of Konstatierungen.

I think, both arguments had an effect in rejecting central state materialism, which stated the identity of conscious states with brainstates: the incapability to answer them persuasively led to the proposal of other sorts of physicalist views, as e.g. eliminative materialism, and later non-reductive materialism. Thus Juhos' views on the psychophysical problem, at least his criticism of the physicalist language thesis, did effectively contribute to the debate on the mind-body problem.