INTRODUCTION[1]

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This collection of papers provides a sample of analyses conducted on various topics in the philosophy of mind by members of the Lvov-Warsaw School.

Two considerations motivate this collection, one of which is historical and the other topical. The historical impetus is the upcoming centenary of Kazimierz Twardowski's move from Vienna to Lvov where he accepted the Chair of Philosophy at Lvov University in 1895, this being the date that marks the foundation of the Lvov-School. In 1896 a Polish philosopher Henryk Struve wrote in a paper on Twardowski: "We have reasonable hope that the new person in our philosophical community will participate in the development of our philosophical literature which we need so badly, and shape its character to correspond to the state of contemporary scholarship in the West in every respect".[2] These expectations were soon fulfilled. A hundred years later there arises the question of whether the topics and issues discussed by Twardowski

[1] My special thanks are due to Dr Paul Joseph Chu who proofread all the texts and who collaborated on the whole project of the collected writings of the Lvov-Warsaw School (in preparation for publication in separate volumes). I am also indebted to Gwen Burda for her linguistic correction, Stanisław Judycki for his comments and Zofia Kolbuszewska for her linguistic remarks. My student Lila Wesierska helped me with the bibliographical research. Kazimierz Dudkiewicz and Jarek Kinal from the University Computer Centre assisted me in solving all technical questions. Due to my fellowship at the Catholic University in Leuven (August-September 1994) where I was able to work in the Husserl Archive, it was possible to prepare the editorial addition to the bibliography. I would like to thank also the Polish Scientific Publishers for their permission to include the following essays in the present collection: K. Twardowski, "Remarks on the classification of views on the relation between the soul and the body" (printed in Polish in [Twardowski 1965], 200-205), K. Twardowski, "Imageries" (see [Twardowski 1965], 114-148), K. Ajdukiewicz, "The psychophysical nature of humans" (see [Ajdukiewicz 1985], vol. 1, 317-324. Ajdukiewicz's paper is translated here by kind permission of Mr. Bron Ajdukiewicz. I would like to extend my grateful thanks to Kluwer Academic Publishers and to Prof. Robert S. Cohen for their kind permission to publish H. Mehlberg's paper "On psychophysical parallelism" (a modified version of this paper appeared as a supplement in [Mehlberg 1980], 261-285]).

[2] See [Struve, 1896], 504 (transl. by U. Z.).

and the many of his followers who formed the Lvov-Warsaw School remain relevant and interesting for a contemporary reader. The second impetus for this collection comes from our recognition of the relevance of Twardowskian issues to current discussion, even if they appear in a different context and are given different solutions, and from our hope that recasting the discussion in the terms of the Lvov-Warsaw School may yield a positive contribution to today's work in philosophy of mind.

This collection does not represent the full range of the inquiries conducted by the Lvov-Warsaw School. Nor does it take into account all the Lvov-Warsaw psychologists and philosophers who dealt with the question of mind. The choice of the papers for this volume is not, however, arbitrary. The papers have been selected for their importance in the Lvov-Warsaw School's discussion of the questions of mind. The papers belong to philosophy (philosophy of mind), although they might also be presented under the title "philosophical psychology" or "philosophy of psychology". Examination of the relation between philosophy and psychology was one of the important tasks of the Brentanists[3] and it played an important role in the writings of the philosophers belonging to the Lvov-Warsaw School. The question is still discussed by contemporary philosophers (for example by N. Block, D. Davidson, J.J. Fodor). Block, for instance, treats the philosophy of mind as part of the philosophy of psychology. According to him, the philosophy of psychology is the study of conceptual issues in psychology.[4] Apart from methodological decisions about the relationship between psychology and philosophy, the analysis of mental acts and their objects had become the main objective of the research conducted by philosophers who followed Franz Brentano. It is true of Twardowski as well, whose analyses often exceeded in precision the analyses of his master. Twardowski's insistence on precision was reinforced by his thorough knowledge of the methodological requirements and the methodological tools of analysis, which was in fact one of the characteristic properties of the school in general.

The issues of philosophy of mind taken up by the Polish philosophers came close to those of Brentano's descriptive psychology. The aim of descriptive psychology was to examine the objects given in representation; the results of this examination were in turn the starting point for studies of the kinds of objects which were investigated in various scientific domains. Such an approach sometimes goes by the name "psychologism".[5] According to Jan Woleński's interpretation, Twardowski's psychologism had two versions:

[3] On the discussion of this question see for example [Spiegelberg 1960], vol. 1, 28-90; [Kockelmans 1967], 67.

[4] See N. Block, "What is philosophy of psychology?", in [Block 1980], 18.

[5] See [Jordan 1963], 11.

methodological and ontological.[6] His methodological psychologism was characterized by the application of Brentano's descriptive psychology as a fundamental method of philosophy. His ontological psychologism was characterized by its definition of the objects of logic (judgments, concepts, meanings) as mental. Edmund Husserl's influence, however, allowed Twardowski to overcome psychologism, as became evident in his essay "Actions and products"(1912).[7] The overcoming of psychologism was important in his discussion of the relation of grammar and logic to psychology; or on the objective level, the discussion of the status of linguistic items, their relation to thought, the nature of objects studied by logic, etc.

Twardowski's approach to psychologism shaped the philosophical attitude of his pupils, whose fundamental task was seen as the characterization of different realms; special attention was paid to the physical and mental realms, which were investigated from both the ontological and the epistemological point of view. This kind of research (undertaken mostly by Twardowski and Marian Borowski) was similar to that carried out by phenomenologists (Husserl and Roman Ingarden), Alexius Meinong and the representatives of his school (mainly by Ernst Mally). Apart from Twardowski, analyses focusing mainly on mental actions and the mental realm were offered, in a true Brentanian spirit, by Walter Auerbach, Eugenia Ginsberg Blaustein and Leopold Blaustein. The empirical approach was adopted by psychologists (Halina Słoniewska, Władysław Witwicki and his son Tadeusz Witwicki).

The Lvov psychologists concentrated mainly on analysis of various mental acts such as perception, imageries, feelings. In their studies they often referred to the research of such German psychologists and philosophers as Ernst von Aster, Alexander Pfänder, Carl Stumpf, and others; for example, they critically discussed the results of research by Wilhelm Wundt, who was well known to the Lvov scholars since many of them (including Twardowski and W. Witwicki) had studied in his laboratory.[8] Due to the fact that Wundt's conception of psychology was very influential, and closely connected with physiology, one of the topics widely discussed by the Lvov philosophers (especially by Twardowski and Solomon Igel) was the problem of the boundaries of physiology on one hand, and its relation to psychology on the other. Twardowski strongly criticised psychophysiology in his paper "Psychologia wobec fizjologii i filozofii" [Psychology in relation to physiology and philosophy] (1897).[9] Polish psychologists (Stefan Baley, Stefan Błachowski

[6] See [Woleński 1989], 41ff.

[7] See [Twardowski 1978].

[8] Others Polish scholars who studied in Wundt's laboratory are: Adam Mahrburg, Marian Massonius, Witold Rubczyński, Stefan Rudmiański, Aleksander Swiętochowski, Adam Zieleńczyk.

[9] See [Twardowski 1965].

and others) used empirical methods in their research in the field of physiology. The theoretical foundations of that research were provided by Twardowski's thought.

Many philosophical questions (such as the characterization of mental objects, the relation between these and the actions by which they are produced, the relation between mind and body) were discussed by a large number of Twardowski's pupils, who were first of all valuable psychologists: for example, W. Witwicki, Igel, Mieczysław Kreutz (from the older generation) and Auerbach and Eugenia Blaustein (from the younger generation).[10] The mind-body problem was also discussed by Władysław Kozłowski, who is not usually listed among the Lvov philosophers but who was influenced by Twardowski's philosophy.[11]

The issues of the philosophy of mind in the Lvov-Warsaw School had deep roots in dualism. On the methodological level there was lively discussion of psychological parallelism (Henryk Mehlberg). On the metaphysical level discussions of the psychophysical nature of man (Kazimierz Ajdukiewicz), and of immortality (Twardowski)[12] were held.

The first paper in the collection, "Remarks on the classification of views on the relation between the soul and the body", is a brief attempt to examine the views on the relation between soul and body discussed during the last century. The paper is mainly of historical value, although it can also be read from a methodological point of view. Twardowski always attached a great deal of weight to linguistic precision and to methodological neatness in presenting his views. He often started his philosophical analyses with definitions which allowed him to attach precise sense to his terms and give an adequate characterization of his views.

His favourite method of achieving these aims consisted in applying distinctions and classifications which helped him to set out his arguments in a systematic manner.[13]

Today we tend not to present our philosophical views in this way. But understanding of the present rich discussion concerning the relation between mind and body might be helped by such an approach. Today, Twardowski's key notions, such as 'substance', 'matter' and 'soul' should be supplemented with such notions as 'function', 'mind', 'brain', 'body'. Furthermore, theories clas-

[10] The latter were both victims of the Holocaust and died in 1944 in the concentration camps.

[11] He was a member of the Philosophical Society in Lvov.

[12] See [Twardowski 1895].

[13] Examples of application of the classification by Twardowski can be found in the following short papers: "W sprawie klasyfikacji zjawisk psychicznych" [On the classification of mental phenomena], 1898; "W sprawie klasyfikacji uczuć" [On the classification of feelings], 1905.

sified by Twardowski as actualistic might rather be called functionalistic in the modern sense. Our reading of Twardowski's paper can be formulated as a general methodological warning: "Be careful when you state your or some other person's views and make clear the concepts you wish your terms to express".

From this initial paper we proceed to discussion of some systematic issues of philosophy of mind. The first problem, presented by Ajdukiewicz, concerns the psychophysical nature of man. In his characterization of the nature of man, in which man is reduced to the psychophysical functions, Ajdukiewicz mainly concentrates on the features of physical and mental phenomena and the differences between them. Ajdukiewicz pays special attention to discussion of the unconscious mental phenomena. This problem was inherent in Brentano's descriptive psychology, which excluded the existence of such phenomena. The problem has, however, become especially vital for psychoanalysis, which, contrary to Brentano, ascribes unconscious phenomena a special role in human mental life.

The problem of psychophysicalism has been approached by Mehlberg in a manner different from that of Ajdukiewicz. Mehlberg's paper is presented here in its first (original) version of 1937, despite the fact that Mehlberg subsequently wrote a new version of this paper. It was published as the supplement to a collection of his papers edited by Robert S. Cohen for the Boston Studies in the Philosophy of Science.[14] Mehlberg, who is known as a philosopher of science, discusses some methodological questions of psychophysicalism. First, he attempts to give explicit formulation to the question of psychophysical parallelism; second, he examines the assumptions on which psychophysical parallelism is founded; lastly, he examines mutual dependencies among these assumptions. To do so, Mehlberg studies different versions of psychophysical parallelism, concentrating on three fundamental theses which characterize different kinds of psychophysicalism.

These theses are as follows:

T1. There is a psychophysical correspondence between consciousness and the nervous system; that is, states of the consciousness are parallel to states of the nervous system.
T2. Mental phenomena are independent of physical phenomena; that is, a mental phenomenon is neither a cause nor an effect of any physical one.
T3. Every mental phenomenon is identical with its substratum.

All these theses are widely discussed today, although in a different context. Mehlberg starts his discussion of psychophysical parallelism with the thesis on psychophysical correspondence, of which he critically examines different

[14] See [Mehlberg 1980].

formulations. Current discussions recall Mehlberg's analyses of T1 which, together with the thesis on identity, form the following conditional statement: if a brain state determines an experience which is simultaneous to it, then identical brain states are accompanied by identical experiences. In current debate one recognizes the Leibnizian problem, namely, how identity should be understood in this case. Without defining identity, the sense of the conditional statement is unclear. Today, an examination of Mehlberg's paper might argue that his view on the question of identity could be directed against identity theorists. Mehlberg doubts whether it would be possible for such a complex entity as a brain and an experience (in the sense of a mental phenomenon) to have the same properties.

In his analysis Mehlberg argues against the identity thesis given in the simple formulation: The experience is identical with its substratum (where, by a 'substratum' he understands a physical phenomenon, such as a physiological state), also called 'event', which in a certain way is connected with a given experience. Mehlberg's argument leads to the conclusion that the problem of identity is positively undecidable. Clearly, the problem is seen differently by a large number of contemporary advocates of identity theory (i.e. H. Putnam, R. Rorty, R. Brandt, J. Kim, J.J. Smart among others). In their various materialistic-functionalistic approaches these philosophers attempt to solve the problem by different reformulations of the concept of identity. In his work, Mehlberg's argument is directed against the Neopositivistic mode of thinking, together with the inductive justification, or, more precisely, the justification of the thesis of identity by incomplete induction. He examines the following case:

If we could count the sequence of properties $P_1,P_2,...,P_n$ and empirically assert that each of them is shared by the experience and its substratum, then (by analogy) we could also say that every other feature is shared by this experience and its substratum.

This is the case of the identity of the experience and its substratum.

However, Mehlberg argues that sentences concerning the experience (mental phenomenon) taking the form "the mental phenomenon A has the property P" cannot be used as premises in inductive reasoning because they are meaningless (in Carnap's sense).

Another objection put forward by Mehlberg is that the notion of 'identity' is unclear when applied to mental terms. Here, Mehlberg points to the difficulties involved in identification of experiences, in that mental phenomena are not classified as spatially located objects. Because of this lack of spatial location, two experiences cannot be regarded as having common properties; therefore they cannot be identical. However, it should be born in mind that the kind of objection advanced by Mehlberg deals only with the notion of 'identity' as far as it concerns mental terms. It does not deal with the notion of 'identity' concerning mental and physical terms. At an objective level, the objection

concerns identity between mental phenomena, and not between mental and physical phenomena. The thesis of identity deals just with the second case.

Returning to Mehlberg's analysis of the thesis on psychophysical correspondence, it might be said that from a methodological point of view Mehlberg's approach to the question of parallelism is somewhat functionalistic. It represents a special version of functionalism, one which might be called mathematical functionalism with respect to the illustration given for the functional dependency between experiences and their substrata. In one version (mentioned by Mehlberg) the properties of experiences are the functions of the properties of their substrata, and this means that there is a many-one meaning relation. Its first relatum is a property of the substratum and the second, a value of that function for a given relatum, is a property of the experience which is accompanied by that substratum. In another version discussed by Mehlberg, similar features of the substrata are accompanied by similar properties of the appropriate experiences. In this sense we are dealing not only with a function, but also with a sequential function.

In his paper, Mehlberg distinguishes among other kinds of parallelism, the formulations of which he treats as empirical hypotheses which can be empirically justified. Their empirical justification is developed only on the basis of behaviour or data obtained from introspection, although some examples given by Mehlberg show that results of neurophysiological researches would be needed here, too.

It is worth examining Mehlberg's analysis of the thesis on independency with respect to the crucial question of causality. His analysis starts with the terminological considerations necessary for clarification of the causal connection (taken in a certain modified formulation of the Humean sense). In this kind of causal connection Mehlberg distinguishes 'strict' from 'loose' cause and complete (i.e. sufficient) from incomplete (i.e. partial) cause. Clearly, these distinctions have been made in order to examine the question of parallelism and the controversy concerning parallelism and interactionism more accurately. Mehlberg pays more attention to the latter distinction (i.e. between a complete and a partial cause). He gives two further formulations of the thesis of psychophysical parallelism in a weaker and a stronger sense:

(T2)' No mental experience is a complete cause of any physical event (or *vice versa,* no physical event is a complete cause of any mental experience).
(T2)'' No mental experience is a partial cause of any physical event (or *vice versa,* no physical event is a partial cause of any mental experience).

As a result of further analyses Mehlberg shows a contradiction between (T2)'' and the conjunction of (T2)' with a certain formulation of the principle of the physical determinism. In order to avoid the contradiction, instead of (T2)' he formulates the thesis of parallelism in the following modified version:

(T2)''' If an experience is the cause of a physical event, there exists at once with this experience a complete cause of this event which does not contain experiences (and *vice versa*).

In (T2)''' the stress has been placed on a complete cause and a temporal aspect which allows (T2)''' to be treated in a clearly deterministic way. Here, its deterministic character is understood as the characterization of deterministic parallelism. A causal and deterministic explanation for mental and physical phenomena allows us to speak about laws, and on this basis Mehlberg's analysis can be read here from the standpoint of a nomological dualism.

As in different versions of nomological dualism, Mehlberg discusses the question of interactionism (dealing with a mutual effect of experiences and events). He shows that physical indeterminism (in the sense that a primary state of an organism does not point to its final state) linked with psychophysical determinism (in the sense that a primary state of the organism of a given person together with his/her experiences points out a final state of the organism of this person) is open to the question of the choice between interactionism and parallelism (in the version analysed above). Here, although interactionism and parallelism are both regarded as dualistic standpoints, they stand in a certain opposition to each other. The heart of this opposition is their approach to the question of causality. According to interactionism, the connections between mental and physical states are causal in character. According to parallelism, there are no causal connections between the two sorts of phenomena, and even if they are connected, this kind of connection is not causal.[15] Parallelism admits causal connections only among phenomena which belong to homogenous sequences of phenomena. Mehlberg's analysis shows how to preserve the parallelism, defending the homogeneity of causal connections, without loosening the psychophysical connections between heterogeneous phenomena seen as examples of causal relations between a mental experience and a physical event.

Mehlberg considers two further kinds of parallelism and interactionism: deterministic and statistic. Roughly speaking, in the statistic version of interactionism the disturbance in the reaction frequency by experience is taken into account, while in statistic parallelism connections between (mental and physical) phenomena are understood statistically.

The conclusion drawn from Mehlberg's analysis can be stated as follows: statistic parallelism linked with psychophysical determinism could coexist with deterministic interactionism. This means that experiences may be causes of (physical) events without disturbing the statistic physical connections occurring

[15] Interesting analysis of parallelism and interactionism has been conducted by J.A. Shaffer. See [Shaffer 1968], 62-72.

between these events. It is evident that this kind of analysis requires experimental verification, although I feel that we may be suspicious of its results (especially where analysis dealing with the statistic approach is concerned).

Many controversial questions are discussed in the paper by Borowski which follows, and of which the general aim is to analyse four kinds of objects: physical, mental, ideal and fictitious. The first question that arises here concerns the criterion used to draw this distinction. Is it the nature of the objects (or, in ontological terms, their constitutive nature), that is the criterion? Or is it their characteristics given in regard to objectivity and subjectivity? Or is it their mode of existence?

Borowski arrives at this distinction by creating a grid with two dichotomies concerning the basic characteristics of objects, i.e. (i) concreteness/non-concreteness, (ii) dependence/independence from a subject of consciousness.

On this basis he distinguishes:

(1) concrete and independent (i.e. objective) objects which form the realm of physical objects, or, in Borowski's terms, the real world;
(2) concrete and dependent (i.e. subjective) objects which form the realm of mental phenomena and mental states;
(3) non-concrete (i.e. abstract) and independent (i.e. objective) objects which form the realm of ideal objects, that is, the ideal world;
(4) non-concrete and dependent (subjective) objects which form the realm of fictitious objects, that is, the fictitious world. Using the terminology of contemporary logicians we should speak of (many) fictitious worlds in this case, rather than of (one) fictitious world.

The above division of objects allows us to tackle crucial epistemological and ontological questions. Against this backdrop Borowski raises problems dealing with (i) concrete things and abstraction, (ii) objectivity and subjectivity, (iii) the relation of object categories to reality, (iv) past and future things, (v) ideal objects, (vi) fiction and fictitious objects, (vi) representation (considered under the title "kinds of objects and their mental equivalents", (vii) the relation among the four distinguished worlds.

Some of the above questions are still of interest today. Borowski classifies mental objects as concrete. In philosophical analysis concreteness is associated mainly with both being material and located in space and time. In Borowski's analysis, such concrete objects as mental ones are not material, but this view is far from that of contemporary neuropsychologists or materialistic philosophers of mind, who ascribe physical properties to mental phenomena and reduce them to physical objects. Borowski stands close to the descriptive psychologists of his times (including Brentano, although his name is not mentioned in the paper). Borowski treats mental objects as concrete in the sense that they have a

spatio-temporal location; they occur in somebody's mind (or organism) at a given time.

In his analysis of objectivity and subjectivity, Borowski distinguishes between two points of view: epistemological and ontological. According to his epistemological point of view (close to P. Natorp's and G.F. Stout's approach), objectivity is the qualification of an object which is given in a cognition that actually takes place; for example, the objects which I actually perceive as perceived-objects are objective. But, in addition, mental states and phenomena which actually appear in somebody's mind and which are treated by the mind as its objects are objective, too. For example, if I am now feeling joy, and I notice my feeling as existing at the present moment of time (and therefore as being concrete), then my feeling becomes the object of my mind and in this sense it is objective.

It is important to stress here that this sense of objectivity allows us to call mental states or phenomena 'objective'; and therefore 'mental' does not always mean 'subjective'. We might here raise the objection that, following the above analysis, mental objects are mind-dependent and as such they are not objective. Borowski is not very clear on this point in his analysis. In defence of Borowski's analysis, however, we may note that in its epistemological sense objectivity is a relative concept, which means that what is objective depends on the epistemological situation in a given moment. This is, of course, a very weak and controversial concept of objectivity. The dependence of objectivity on the epistemical situation seems to be comparable to the famous Nagelian "single point of view".[16]

At the ontological level Borowski's analysis yields an equally weak concept of objectivity. Borowski writes: "Those phenomena are ascribed objective sense which are identical in many people and occur under identical conditions". Although he claims to have answered the question "What makes those phenomena identical for many people?" he does not reply to it. Many contemporary philosophers who seek to answer this question tend to accept various naturalistic solutions based on the thesis that people possess identical faculties developed in a long process of evolution. The controversy over objectivity and subjectivity pertains to crucial philosophical issues, and Borowski only touches upon this broad question.

Subsequent sections of Borowski's paper suggest the ontological level of consideration. Here, too, we see that the ontological aspect has been joined with the epistemological one. It is interesting to note that in Borowski's analysis of categories of objects and their relations to reality, reality has been juxtaposed with fiction rather than with nothing. In this sense we are again dealing with something which is objective, and at the same time subjective, and as such, it is created by mind. The problem of past and future things is raised

[16] See [Nagel 1979].

also from the epistemological perspective. For example, from the ontological perspective of Ingarden, past and future things are defined as real. From the epistemological perspective employed by Borowski, the problem is how 'real' such things are. Borowski stresses, adopting the ontological perspective, that in passing from the realm of the present to the realm of the past, the nature of a physical (and therefore real) object does not change. We might say that an object retains its identity in time. Such statements are based on various assumptions concerning time itself and connected with such questions as: Is it physical time? Is time real? Borowski does not ask these questions.

Yet when he moves to the epistemological level, Borowski gives an interesting analogy between this problem and a train journey "Looking out of the train at a given moment, we perceive some fragment of a locality and call it the present. The past and future are fixed; they cannot be changed. Likewise, our life is *at the ready*; only consciousness moves, casting light on new stages every now and then". This analogy echoes the example given by H.G. Wells under the name of "the time traveller", which was quoted by Peter Geach in his paper "Some problems about time".[17] Nowadays the problem of a time traveller is seen in a new light in the philosophy of physics. Some essential contributions have been made by Paul Horwich, for example.

In his analysis of past and future objects, Borowski stresses another point concerning the controversy between determinism and indeterminism and the problem of modality. Past and future objects are not factually present; they merely appear in our consciousness as remembered or anticipated. We know that the former have already happened and that the latter can still happen. The past is present to us as something definite (and in this sense past objects are determined), and the future appears as dependent on our will and actions and is therefore indetermined. We should however distinguish two different aspects in the above views on past objects: (1) ontological, which has to do with a certain sense of determinacy and necessity,[18] and (2) epistemological, which has to do with remembering past objects which become the less defined the further we move from the present. Borowski develops this second point into a characterization of past objects in comparison to future objects, which are in a certain sense the construction of our mind. Some further development of Borowski's ideas of the past would be especially important for the methodology of history in the analysis of historical facts.

In another section Borowski addresses the controversy over ideal objects. Many fundamental ontological questions are connected with the problem of qualities. Borowski assumes that qualities – or, in his terms, abstract features –

[17] See P.T. Geach in [Strawson 1968], 175-191.

[18] This is one of the Aristotelian senses of necessity: necessary is whatever has happened because if it has already happened, it cannot be otherwise (*Herm. IX*, 19a 24-25).

such as 'white', 'heavy', 'removed' which belong to concrete objects can be considered separately as abstractions or individual ideal objects. He claims that "they exist in the same way as the objects whose parts they are".[19] Borowki's analysis concerns only general ideal objects, among which he includes such features as colour, triangularity, distance in general, etc. Yet, his interpretation of the claim that the features of the concrete objects are individual ideal objects seems to be controversial. Let us take the example of this sheet of paper. One of its features is 'being white'. According to Borowski, this means that 'being white' is an individual ideal object. Let us now concentrate on his view expressed as follows: "While there are as many colours being individual abstractions as colourful objects, there is only one ideal general object 'colour' and it is considered common to all colourful objects".

However, such features as 'being white' or 'being red', etc. can be shared by many objects, which are respectively white or red. In this sense 'being common' cannot distinguish between an individual and a general object. Borowski could say here that 'being this white sheet of paper' is an individual object, but what kind of feature would 'having any colour by this sheet of paper' be in this case? Taking into account that this sheet of paper has only one colour and the feature exists in the same way as the objects whose parts they are, the features in question should also be individual. On the other hand, if we said that 'having any colour...' means that, although in fact this sheet of paper has only one colour it might have any of the colours from the spectrum, then would we also say that the feature in question is individual? We again see two possible solutions: (1) the feature 'the colour of this sheet of paper' is individual since it is a feature derived from given concrete things (this sheet of paper) and as such it has its realization only in one colour (which is factually ascribed to this concrete thing from which it has been derived); and (2) at the present level of analysis, which deals with abstract objects, we take into account all possible colours which can be ascribed to this sheet of paper, although we know that only one of them has its realization in it.

Resolving this question is important for ontological reasons, since it commits us to the problem of universals. The first solution is given by Stanisł aw Leśniewski. Borowski approves of Leśniewski's approach to the question of general objects, although he does not accept all his theses. He rejects Leś niewski's view that only such features are general objects that are shared by the concrete objects which partake in a given general object. If they were, would he attempt to find another solution? Any attempt to answer this question requires deeper ontological consideration.[20]

[19] It seems doubtful that the term "parts" is used here in its technical (strict) sense.

[20] It seems that the most precise ontological analysis of qualities has been conducted by R. Ingarden. Instead of speaking about general and simple qualities, Ingarden speaks

The thesis that the features of concrete objects exist in the same way as the objects of which they are parts is not clear. The discussion of this thesis is important as regards its commitment to the question of universals. In his ontology, Borowski postulates the existence of individual features of concrete objects. This is the nominalistic view, which in the Lvow-Warsaw School was strongly advocated by Leśniewski and Tadeusz Kotarbiński. Borowski, however, requires more: he postulates such features as are derived from concrete objects and which still exist independently of those objects. These features are no longer concrete, but abstract; nevertheless they are individual. Moreover, they form a special category of objects, namely the category of individual ideal objects.

All these remarks may direct our attention to ontological analyses conducted outside the Lvov-Warsaw School and which have been more successful; for example, those conducted by Meinong and Ingarden.

The next paper in the collection is written by Twardowski. It is part of a longer essay "Wyobrazenia i pojęcia" (Imageries and concepts) which together with the paper "O czynnościach i wytworach" (Actions and products), has played a major role in the development of analytical method in Poland. Both papers, as far as philosophy of logic is concerned, had an impact comparable to that of the works of Gottlob Frege, Charles S. Peirce and Bertrand Russell.[21] The fragment of the essay included in the collection addresses important epistemological issues connected with the analyses of imageries. One immediately recognizes Twardowski's style of analysis in the paper, which conducts a very clear and precise examination of imageries, starting with some historical remarks concerning the question of imageries and their relations to concepts.

Twardowski also discusses the different senses given to the notion of 'imagery' in the terminological apparatus of Christian Wolff and Immanuel Kant. This section of the paper has not been included in the collection, since most of Twardowski's analysis concerns Polish terminology, which might not be clear or interesting to a non-Polish reader. Twardowski begins with a critical analysis of three definitions of imageries, according to which imageries are: (i) reproduced impressions (Hume's approach), (ii) sensory reproductions of perception, (iii) syntheses of impressions. Altough Twardowski is inclined to accept the third definition, it proves to be too narrow, since it does not embrace imageries of mental objects, whose existence Twardowski accepts. An important part of Twardowski's essay is its analysis of imageries of mental objects. Twardowski sets out an analysis of concepts which pays special attention to the problem of differences between concepts and imageries. He

about compound and simple qualities, and he distinguishes them in regard to their constitutive nature.

[21] See [Jordan 1963], 7.

shows that both the conditions and limits of imaginability leave room for concepts as mental representations of objects.

Let us look at Twardowki's essay in the context of contemporary discussion. Also today, the question of how to understand and define imageries is regarded as fundamental. In contrast to current debate, which is in large part concerned with semantic issues such as the relations of imageries to truth and reference, the problem of imagistic representations, etc., Twardowski focuses on epistemological issues which more closely matched the interests of philosophers in his time. The problem is still controversial is that of the role of imageries in the process of our cognition and thinking. The cognitive role of imageries (or, more precisely, of imagistic representations) is defined in various ways by J. Fodor, S. Kosslyn and J. Pomeranz; while it is entirely rejected by D. Dennett, Z. Pylyshyn and many others.[22] Framing the issue in contemporary terms, current discussion concerns imagistic representation and the question of whether such representation can import information, or whether information can be obtained only from verbal (i.e. conceptual) representation. The defenders of the epistemic role of imageries support their view by arguing that imageries import information because they are founded on perception, which is the source of our knowledge. The problem of perception is also one of the crucial points of Twardowski's analysis of imageries. Twardowski (following the modern philosophers) also claims that imageries are rooted in perception. In his analysis he distinguishes among three kinds of imageries (creative, reproductive and perceptual) and shows that imageries are rooted in perception; even if they are not directly perceptual but creative or reproductive, they become perceptual on the basis of our remembering and fantasizing.

However, Twardowski understands perception more widely than contemporary philosophers, for whom perception is only our cognitive sensory operation relative to physical objects. Like the Brentanists, Twardowski does not limit perception to sensory, i.e. external perception; he also includes in it the inner perception of mental phenomena (such as my own pain, joy, and so on). This view, which is very important for the Brentanists, is probably strange to contemporary philosophers, who, if they make any effort to give an account of our mental life at all, do so by applying the 'hard methods' current today in cognitive science; otherwise this important domain of our life remains inaccessible.

However, Twardowski's arguments in support of the thesis that there are imageries of mental objects is based, not on his assumption concerning perception, but on his assumption concerning concepts. Twardowski's view on concepts comes close to the traditional Aristotelian point of view which treats

[22] See on this topic amongst others [Beakley and Ludlow 1972], part 3. Mental imagery.

imageries as the foundation of the process by which we form concepts (on their basis of imageries).[23]

In order to avoid confusion, we should bear in mind that by 'imageries' Twardowski does not mean just the visual imageries by means of which we form pictures in the mind (as theorized by the British Empiricists). Twardowski uses the term 'imagery' in one of the senses of 'representation' (equivalent to the German *anschauliche Vorstellung* or *Anschauung* in the technical sense), which is first of all concrete and direct. Twardowski conducts a very precise analysis in which he focused on the features which distinguish imageries from concepts (although concepts are based on imageries). In contrast to concepts, imageries have the following features: concreteness, manifestness, sketchiness. Concreteness here means a certain 'totality' of all the elements of which a given imagery consists. Twardowski also emphasises the role of concreteness in reference to mental objects. We arrive here at an essential point of Twardowski's argument for the imageries of mental objects; an argument which proceeds as follows:

A1. Imageries are the basis on which concepts are formed.
A2. There are concepts of mental objects (like for instance, a concept of judgment, of imagery, and so on).

Thus there are imageries of mental objects.

This argument can be presented as a simple form of deductive inference.

A1. If x is a concept, then x is based on an imagery

$$Cx \rightarrow Ix$$

A2. x is a concept and x refers a mental object

$$Cx \wedge Mx.$$

Thus, by the rule of detachment of conjunction, the rule of derivation and the rule of joining of conjunction, we obtain: x is based on an imagery and x refers to a mental object.

$$Ix \wedge Mx.$$

The first assumption in Twardowski's apparently psychologically motivated account is its most controversial statement. There seems to be some 'gaps' or

[23] This view has been stressed by Elzbieta Paczkowska-Lagowska. See [Paczkowska-Łagowska 1980], 173.

'weak points' in Twardowki's analysis of imageries of mental objects, especially in his characterization of the structure of imageries. Twardowski himself admits that an imagery consists of a number of relatively simple elements and that it integrates those elements into one whole, impossible to qualify but known to everybody from personal experience. Even if we accept this definition as applying to imageries of physical objects, it seems more obscure when referred to mental objects. What are the elements of which an imagery of a mental object – for instance my pain, love, joy or sadness – consists? How are they connected to form a whole? There is no need to repeat the well known examples (given by Ludwig Wittgenstein and many others contemporary philosophers) which demonstrate the difficulties in describing the characteristics of mental objects. There are many such difficulties or questions which arise in this point of Twardowski's analysis in the context of contemporary philosophy of mind.

Let us illustrate some problems by providing some examples and 'translating' Twardowski's ideas into ordinary language in order to examine his views. Suppose that at the present moment I am excited with a feeling of joy because of an expected meeting with a friend with whom I have been long fascinated. I am aware of my joy because I am the kind of a person who reflects on her mental life. I try to concentrate on my feeling (which for Twardowski means perceiving my feeling in the inner perception). I feel that I am excited. I feel that I am fascinated with my friend. I feel that I like him. I feel that I wish to meet him. I expect to have a wonderful evening with him. I am in high spirits. All these feelings make me joyful. But how do I know that I conceive my joy as a complex phenomenon? For example, it might be that my love as a total mental phenomenon can have joy as its element. One can simply say that to describe somebody's feeling is a task for a psychoanalist rather than for a philosopher. Perhaps Twardowski would agree; nevertheless he would say that the theoretical task of conducting a general analysis belongs to philosophers.

The above example raises another question which seems to be directly connected with concreteness in Twardowski's sense: the problem of specificity. We might ask whether concrete phenomena considered as wholes in the same way as concrete (physical) things (which are individual) are treated, should be numerically specific or not. We have already noticed the following problem in the perception of feeling: How do we distinguish an imagery of one mental object from the imagery of another one, when both seem to be very close to each other, or when one seems to be an element of the other? How do we distinguish our whole feeling of joy from our feeling of love? Should we speak about particular token-imageries or only about particular type-imageries? If the former is the case we should distinguish, for example, between the imagery of my joy because of my expected meeting with my friend and the imagery of my joy because of an expected visit by my father. If the latter is the case, in turn, it is necessary to distinguish, for example, the imagery of my joy from the

imagery of my sadness. From further sections of Twardowski's paper we learn that he also divided imageries into particular and general, and in accordance with these kinds of imageries we might apply the above terminology.

The next feature which characterizes imageries and which allows us to distinguish them from concepts is manifestness. An imagery is manifest in Twardowski's sense when it is directly perceived; or at least, when it is apparently so perceived. Twardowski gives an example of the creative imagery of a giant. In spite of the fact that the imagery of a giant is mainly formed as an act of our creative fantasy, it is formed as if a giant really existed and were accessible to our senses. Our creative acts seem, however, to depend on what we have experienced in perception previously. Although we have never perceived a giant, simply because such an object does not exist, our mental apparatus is so highly developed that, on the basis of our perception of a normal person, we are able to imagine it. But you may also say, "No, I cannot imagine a giant. It is absurd". This example leads us to another problem discussed by Twardowki, namely the problem of the scope of imageries. The scope of imageries is determined by the possibility of having imageries which are concrete and manifest.

Finally, imageries are distinguished from concepts by their sketchiness; this means that some features of imagined objects are more noticed in imageries than others. Sketchy imageries are divided between general (which lack specific features of imagined objects) and peculiar (in which there are specific features of imagined objects; for example, in the imagery of somebody whom I know, I can imagine this person by imaging the characteristic features of his face). Twardowski discusses the relations among these features of imageries, commenting on the debates among philosophers and psychologists of his time. His exchange of views with Meinong is especially worthy of note. Many contemporary philosophers consider Twardowski's essay as an additional contribution to debate on the subjects in which he and Meinong were interested. But we can also expect Twardowski's essay to arouse the interest of a wider audience. Mention could also be made of many other points stressed by Twardowski in his paper, most notably the relation of imageries to impression: imageries can be treated as being included in the sensory phenomena.

The question of sensory phenomena is the subject of the last essay of the collection. The aim of this essay, written by Twardowski's pupil Igel, is to find a solution to the methodological question of whether any special science of sensory phenomena is needed. As Igel shows in his paper, the answer to this question depends on the important philosophical question: "What is the relation of sensory phenomena to the physical and mental worlds?" After a short presentation of different standpoints adopted by empiriocritics (with Ernst Mach) on the one hand, and Aristotle and Neoscholastics on the other, Igel examines three theses which defend the specificity of sensory phenomena when compared with physical and mental ones.

The theses are as follows:

T1. Mental data form the subject matter of psychology; physical data form the subject matter of physics. Sensory phenomena are neither physical nor mental; thus they are the subject matter neither of physics nor of psychology.
T2. The sensory world often experiences change conditioned by neither physical nor mental reality. Investigating such changes is not the aim of physics or psychology, but of some other science.
T3. Physics and psychology are domains which explain the sensory world. Yet a domain of science is needed which describes the sensory world independently of its relation to the physical or mental world.

Igel examines the above theses in detail and makes critical reference to Stumpf's views, which were highly influential at the time. Igel rejects the need for a special domain of science devoted to sensory phenomena: sensory phenomena should be examined within the framework of physics, psychology and physiology. As an argument for the above conclusion Igel analyses changes which occur in sensory phenomena. He shows that these changes depend on factors which are physical (such as a stimulus from the external world), mental (such as empirically perceived imageries)[24] and physiological (as the operation of our nervous system). Igel's argument is based on sound knowledge of the psychology of his time, but unfortunately also on an outmoded conception of physics. Since his view of physics is mainly that of nineteenth-century mechanics, this section of Igel's paper has been omitted. In the light of contemporary developments in cognitive psychology, neurophysiology and philosophical psychology, Igel's analysis must be revised in many points. Nevertheless, it warrants brief examination since it is an example of the application of the analytic method. It provides a clearly-argued survey of topical problems addressed by debate among philosophers and psychologists at the beginning of twentieth century. It also offers a solution to the problem of a special domain of science devoted to sensory phenomena. Igel's paper also sets out his views concerning the characteristics of physical and mental phenomena; a question discussed by the previous papers in this collection. It was for these reasons that the decision was taken to present this essay to non-Polish readers.

A contemporary reader will read the essay in the context of current discussion, where neurophysiology is considered to constitute the background for the problem of sensation (from a materialistic point of view presented by central-state theorists). On the other hand it has been considered semantically by the large number of contemporary philosophers who have been influenced to varying extents by Wittgenstein's approach. The relation between sensory phenomena (sensation) and the physical and mental realms is still a vital

[24] We saw the common point with Twardowski in the question of imageries.

problem today. In the language of contemporary philosophy of mind the question is this: What is the relation between sensation and brain processes and mental phenomena (if such phenomena are at all reducible to one or the other)? There is, moreover, the debate between the proponents of materialism and different sorts of dualism (or philosophers whose position is not extremely materialistic).[25] The answer to this question on the objective level determines the answer on the metalevel; that is, it defines the character of the investigation. Although one may ask, like Igel, if there is a need for a special domain of science dealing with sensory phenomena, their deliberations show that sensory phenomena are to be explained in neurophysiology itself (in its extreme version), i.e. independently of philosophy, or only with the help of neurophysiology and some other cognitive sciences (hence, in a more complex way).

I conclude this introduction by expressing the hope that readers of this collection of papers on the philosophy of mind in the Lvov-Warsaw School will find it not only a valuable source of knowledge about Polish philosophy of the time but also of relevance to current issues of debate.

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[25] See for example the discussion evoked by the paper of J.J.C. Smart "Sensations and brain process" in [Borst 1979], 52-66.

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