

Dariusz Piętka (Cardinal Stefan Wyszyński University in Warsaw)[♦]

THE CONCEPT OF INTUITION AND ITS ROLE IN PLATO AND ARISTOTLE

Abstract. The subject of the article is intuition and its role in philosophical cognition in Plato and Aristotle. The main problem concerns the rationality of intuitive knowledge. Plato is the heir of the Parmenidean doctrinal tradition of being and cognition. According to him, intuition is the immediate perceiving of ideas. This may be supernatural intuition or rational intuition. The first is perceiving ideas seen before birth, the second is recollection of knowledge or cognition of ideas in the mind. The aim of intuitive knowledge is the definition of the essence.

Plotinus is the successor to Plato's theory of supernatural intuition. Aristotle used intuition to formulate the first principles of science or to define the goals of activity. Each type is characterised by common features, such as directness, comprehensiveness of cognition and obviousness. There are differences between the types of intuition. First of all, they concern whether the object is natural or supernatural, its intersubjectivity, and the sources of intuitive cognition.

In the case of intersubjectivity, Aristotle introduced a confirmation procedure concerning some of principles known intuitively. The idea of confirmation is forced by accusations against, for example, the principle of non-contradiction, which made Aristotle present a certain extra-intuitive way for it to be substantiated.

Key-words: Intuition, *nous*, Plato, Aristotle, ancient theory of knowledge.

Introduction

Science, or more generally knowledge, is an organised set of propositions. Their arrangement, broadly speaking, is that particular propositions from the set are justified by propositions formerly accepted which are substantiated by

[♦] Address for correspondence: Instytut Filozofii UKSW, Wóycickiego 1/3, 01-938 Warszawa, Poland.
Email: d.pietka@uksw.edu.pl.

those accepted before them. In every process of justification it is proved that at the end of the set, there is a proposition which does not have its reason in another proposition. Thus some primary propositions, accepted as a consequence of direct cognition, form the basis of every kind of knowledge. Intuition is one of its types. In antiquity, it was perceived as the most valuable way of cognition, for the pre-eminence of intellectual cognition over empirical experience and the pre-eminence of direct over indirect cognition were recognised. Therefore, a purely rational and direct method would be ideal.

In Greek philosophical texts, the terms *nous* or *noesis* were used to refer to what we today define as intuition. However, this does not mean that *nous* and intuition are the same; for *nous* is used to indicate mind, reason, thinking, wisdom, the soul, and even the heart – it has thus a broader range of meaning. Although it was primarily used to denote only direct sensory cognition, with time its semantic content was broader¹. In philosophy, it is used with cognitive, ontic, and moral meanings. Intuition is one of the functions of *nous*, one could say a primary function, in which I am interested in this paper.

A fundamental question related to the issue of intuition concerns its rationality. From today's point of view, when we accept weak rationality conditions of cognition – that is an intersubjective communicability and verifiability – we face the problem of the value of intuitive cognition. How can intuitive cognition be intelligibly expounded and supported? These issues were discussed in theories proposed by the ancient philosophers and in the beginnings of the development of intuitive cognition theory. The aim of this paper is to present the concept of direct intellectual cognition during the initial stages of the development of cognition theory and to analyse the function that it performed in the contemporary theory of knowledge. The objects of my analysis and description are, primarily, Plato's and Aristotle's theories of cognition because, first, they focused on previous philosophers' opinions and, second, they exerted a considerable impact on the whole of philosophy and

¹ As K. von Fritz, *NOOΣ and NOEIN in the Homeric Poems*, pp. 91–93 observes, in early literature, for example in Homer's works, a fundamental meaning of *noein* and *nous* is to *grasp a thing, to understand a situation*, but these concepts never denote reason or reasoning. Etymologically, the words *noein* and *nous* have the same semantic root and they are probably derived from *sniff* or *smell*. D. Frame, *The Myth of Return in Early Greek Epic*, p. IX propose[s] to connect [the word *nóos*, "mind"] with the verb *néomai*, "return home". Such an effort which requires that *nóos* be reconstructed as **nos-os*, a derivative from the verbal root **nes-*. G. Nagy, *Sēma and Nóēsis*, pp. 48–49 writes that [...] *nóos* is a nomen actionis derived from the Indo-European root-verb **nes-* meaning something like 'return to light and life'. This meaning is still attested in Indic *Nāsatyā*, a name of the Divine Twins who bring mortals back to life and who bring about sunrise after the night brought on by each sunset. The root-verb **nes-* is attested in Greek as *néomai*, but in this case it means simply 'return,' not 'return to light and life.' [...] There are in fact two aspects of *nóstos* in the *Odyssey*: one is of course the hero's return from Troy, and the other, just as important, is his return from Hades. Moreover, the theme of *Odysseus'* descent and subsequent *nóstos* 'return' from Hades converges with the solar dynamics of sunset and subsequent sunrise. The movement is from dark to light, from unconsciousness to consciousness as expressed by *nóos*. Finally, for S. D. Sullivan, *The Psychic Term Noos in Homer ...*, pp. 166–167 & pp. 176–178: (1) *noos* can be an active agent within person, (2) it appears with verbs in the passive voice [...] It can be "turned", poured out", or "completed" [...] (3) *Noos* is described as changeably entity. [...] It can be described in positive or negative terms [...] For example, it can be "firm", "god-fearing", "fearless" or "shrewd" [...] "unbending", "rather hasty" [...] (4) it appears as an object to be "known", (5) *Noos* frequently serves a seat of a person's character, disposition, or temperament [...] (6) In terms of time, *noos* [...] functions at the beginning of situation [...] or concurrently with a situation [...] (7) it is frequently associated with "inner vision" [...] pondering, deliberation, and planning [...] (8) it is associated with intellectual, emotional or volitional activity.

future science. It is impossible not to refer to those philosophers whose theories influenced in a significant way both Plato and the Stagirite, or were continuations of their thoughts leaving their mark on philosophy and even theology of future centuries.

1. Preliminaries to the theory of intuition, or Parmenides's path of enlightenment

From Parmenides of Elea – the first metaphysician – the issue of principle grew in importance mainly because, unlike his predecessors the Milesians, he placed it in the realm of transcendence. It was formulated not as the result of sensory perception, but some kind of intellectual examination. This principle presents a direct characteristic of Being which is the ontological truth¹. It was expressed in fragment DK 28 B 2, 3 of Parmenides's being a part of his epic poem *On Nature*². It can be translated according to Kahn's suggestion as

[t]he first way is that it is and that it cannot not be³.

In his opinion, such a translation does not reflect Parmenides's thought precisely enough and it requires an explanation. First of all, the subject of the sentence has to be indicated because in the first part of the Greek phrase in question, a solitary ἔστιν appears. Kahn states that the subject here is either the object of knowledge or anything that is or could be perceived⁴, the content of knowledge the goddess has promised to reveal to the young man (DK 28 B 1, 22–32). From his point of view, *some thing* would be a predicate. The whole fragment would thus have the form: *the object of knowledge is and it cannot not be*⁵. Such an interpretation of Parmenides's text entails a veritative and non-existential function of the word *is* in ancient Greek⁶.

There is also a number of interpretations of this fragment based on the existential understanding of ἔστιν⁷. Barnes translates it in the following way: *One, both that it is and that it is not for not being*⁸, whereas Burnet proposes: *The first, namely, that it is and that it is impossible for it not to be*⁹. When we compare Kahn's literal translation (without explanations) with Burnet's and Barnes's translations, they seem similar, especially the first part of this sentence. In both the first and the second translations, this fragment can be interpreted as a primary form of the ontological principle of non-

¹ I reject here the materialistic interpretation of Parmenides's being as a sphere, popularised, for example, by B. A. G. Fuller, *History of Greek Philosophy: Thales to Democritus*, ... pp. 148–153.

² DK 28 B 2, 3: ἡ μὲν ὅπως ἔστιν τε καὶ ὡς οὐκ ἔστι μὴ εἶναι.

³ Ch. H. Kahn, *The Thesis of Parmenides*, p. 707.

⁴ See Ch. H. Kahn, *The Thesis of Parmenides*, p. 710.

⁵ Ch. H. Kahn, *The Thesis of Parmenides*, p. 711.

⁶ Ch. H. Kahn, *The Verb „Be” in Ancient Greek*, p. 372. A. P. D. Mourelatos, *The Route of Parmenides*, chapt. 2 also expresses a conviction about a non-existential function of the verb εἶναι.

⁷ On different possible translations of this fragment see D. Piętka, *O zasadach niesprzeczności i tożsamości u Parmenidesa*, pp. 50–54 & D. Piętka, *Prawda i fałsz w filozofii języka Platona*, pp. 34–37.

⁸ J. Barnes, *The Presocratic Philosophers*, vol. I, p. 157.

⁹ J. Burnet, *Early Greek Philosophy*, p. 173.

contradiction¹ – which is, above all, the principle of being that was revealed by the goddess. According to other interpretations, there is no reason to intend, from the point of view of modern grammar, a distinction between predicative and existential ἔστιν².

For Parmenides, cognition has value only when it concerns that which is immutable and eternal, one and homogeneous. One could say that since the principle of the path of truth was not accepted as the result of cognition based on sensory perception, it was acknowledged regardless of it. It is indicated, above all, by the context of the poem and the meaning of the prologue in which the author presents an enlightenment character of the journey completed by the young man who arrived in the goddess's house. The purpose of the journey is to know the truth (see DK 28 B 1, 28–29). For Parmenides, being was the object of examination. When he writes in fragment B 3 that *being and thinking are the same*³, it means that he has the sense of interrelation between thinking (*noein*) and being (*to eon*). Somehow reason touches being, unifies with it, while however, it does not constitute an ontological unity with it. It is clarified in subsequent paragraphs where Parmenides writes that thinking and the source of thought are the same; for without being, there is no thinking⁴. It should be remembered that reason (*nous*) is non-extensible, similarly to Parmenides's being⁵. For him, it could constitute the basis for acknowledging the unification of the possibility of thought and its object. To expound it in modern language: he postulates the identity of the content of thinking and the content of being, stating at the same time that thought does not constitute being–truth.

In the prologue, a contemplative character of thinking is metaphorically expressed with reference to Hesiod's theogony. Parmenides seems to indicate the *enlightenment* specificity of cognition of the path of truth. This enlightenment is supposed to consist of the understanding of this path⁶. As Sextus

¹ The quoted principle is of an absolute character that is not relativised either to aspect or time. For this reason, in the following paragraphs of his poem, Parmenides can derive the properties of being which radically place it in the world of non-extensibility.

² See M. Furth, *Elements of Eleatic Ontology*, pp. 242–243.

³ DK 28 B 3: ... τὸ γὰρ αὐτὸ νοεῖν ἐστὶν τε καὶ εἶναι.

⁴ See DK 28 B 8, 34–36: ταῦτόν δ' ἐστὶ νοεῖν τε καὶ οὐνεκεν ἔστι νόημα. / οὐ γὰρ ἄνευ τοῦ ἐόντος, ἐν ᾧ πεφασισμένον ἐστίν, / εὐρήσεις τὸ νοεῖν: [...].

⁵ A materialistic myth related to Parmenides's conception of being persists in the literature. It is presented in the form of corporeal sphere or geometric solid. However, adopting the perspective presented in the prologue and determined by the principle of the path of truth, an immutable and transcendent being should be treated rather as some kind of idea of truth.

⁶ In Hesiod as well as in Homer, *noos* is often treated as *idein*, which designates the sense of sight, but it can also be used for recognition and identification of objects and even for the realisation of a situation. See K. von Fritz, *NOOS, NOEIN, and their Derivatives in Pre-Socratic Philosophy (Excluding Anaxagoras)*, p. 81. In comparison to Homer, Hesiod proposes a broader understanding of *noein* and *nous*. In his thought a new combination of the intellectual and volitional elements of *noos* appears. Perhaps, this enlightenment could be connected with a volitional element. K. von Fritz, *NOOS, NOEIN, and their Derivatives in Pre-Socratic Philosophy (Excluding Anaxagoras)*, pp. 27–28 states that [w]hile in Homer *noos* never means clearly 'deliberate attention', though in a few very rare cases it seems to approach this meaning, this connotation is now definitely established in the expression *noos atenes*, 'inexorable'. At the same time, Hesiod understands *noos* just like Homer, for whom *noos* always sees the truth (e.g. in *Theogony* 12).

writes, an allegorical sense of the prologue also indicates Parmenides's intuitive way of the cognition of principles. For in the prologue, the motif of a journey is presented; it is, in his opinion, an allegory of enlightenment. It is about the passage from darkness to light that enlightens, or some direct cognition of that which is imperceptible by the senses, about encompassing with mind that which is different from the object of mortals' opinions¹. The motif of light as the object of cognition, represented in the form of the Sun, is also present in Plato and it will be closely related to noetic, intuitive cognition. The quality of light is that it allows eyes to see that which cannot be seen in darkness. Light which appears on the young man's way creates *space* to encompass truth with mind. One could say that this space is the principle expressed in DK 28 B 2, 3. Only in the light of this principle is it possible to understand that Being is something and how it is. Although in a rump form, probably not yet precisely realised, Parmenides draws a distinction between the cognition of principle and that which is encompassed in its light.

Parmenides's activity constitutes a turning point in philosophy from which there is a distinction between types of objects of cognition and corresponding types of methods of cognition – an adequately immutable and transcendent being known by intuition, and corporeal objects known by opinions which are based on empirical experience. Plato accepts and develops in his theory the concept of a cognition of which the results are true knowledge (*episteme*) and opinions (*doxa*). His poem revolutionises to some extent a philosophical understanding of the world and influences the development of the theory of cognition, indicating at the same time the existence of two planes – an immutable and transcendent substantialist plane and a mutable non-substantialist plane immanent to the world – as well as corresponding adequate methods of cognition either independent of experience or based on empirical experience.

It is in Parmenides where one should seek the emergence of problem related to sources of cognition. For his researches are an extension of researches conducted by the Milesian philosophers of nature who were also looking for an immutable factor which determined the unity of things, but restricted their searches to the natural world as the only world given to humans through cognition. Their goal was to find a final cause of the corporeal world, its beginning, material, and principle. Situating it among corporeal substances, as a matter of fact they were seeking for something absolutely fundamental and immanent in the world, on which depended the nature of everything else.

2. Supernatural and rational intuitions in Plato

In the *Republic* Plato describes what cognition of a noetic character consists in². Although the Sun gives sight, there is also essence which allows

¹ For instance, A. M. Komornicka, *Studia nad Pindarem ...*, p. 22 states that in ancient Greek texts, there was a relation between the concept of light, gleam (brilliance) and truth. In her opinion, light was a synonym of that which the word φαίνεσθαι (*to shine forth*) referred to.

² I narrow here the field of my deliberations only to intuition as a cognitive ability of humans. I am not concerned with a whole series of issues related to the understanding of *nous* as a deity. This problem arises

us to know that which is non-extensible, immutable, and eternal. This metaphor refers to the idea of the good, which conditions the possibility of intellectual cognition because it is the source of light for the soul. The essence of good constitutes the condition for thinking and is its (final) object (see *Republic* 509b).

In Plato, the objects of intuitive, noetic, cognition are ideas. Ascending the rungs of the cognitive ladder, thought touches the very essences without using the senses (see *Republic* 510b–c). In the search of one essence – the principle of multiplicity – this path runs from multiplicity to unity. Along the path to a non-determined essence, thought uses assumptions as rungs of cognition. Intuition can be prepared for through pure conceptual analysis (see *Phaedo* 100a–b). For instance, based on the analysis of truth, beauty, and proportion, one can affirm that, treated as a unity, they constitute the essence of the good (see *Philebus* 65a)¹. These are three conditions which the good has to fulfil in its essence². Intuition can be prepared to some extent through sensory cognition (see *Symposium* 210a–e)³. However, intuition itself is not the result of making a conclusion. It may seem that in the aforesaid fragment we encounter inductive reasoning, whereas in fact it is the operation of abstraction, at each particular stage, which more and more leads to the understanding of what the essence of Beauty is. Inductive reasoning does not lead to the understanding of essence, but to the attribution of a specific property to many (eventually all) objects of some type. Plato does not apply generalising induction, but the induction that Aristotle would later call heuristic.

This method consists in collecting the data of experience and expressing them in propositions related to individual things. In his *Symposium*, Plato uses examples to explain what this stage consists in. At first, we notice the beauty of an individual human body, next we notice this beauty in many bodies, and later we notice it in individual souls and then in acts, laws, and teachings. By perceiving the beauty in many things, we can see the very essence of Beauty. Such seeing is, in fact, understanding of what Beauty is⁴; it also applies to

especially in the *Timaeus*, where *nous* is perceived as mind that creates the world. See S. R. Charles, *The Emergent Metaphysics in Plato's Theory of Disorder*, pp. 30–31. F. M. Cornford, *Plato's Cosmology*, p. 27 interpretes *nous* as the Demiurge–God.

¹ εἰ μὴ μιᾶ δυνάμεθα ἰδέα τὸ ἀγαθὸν θηρεῦσαι, σὺν τρισὶ λαβόντες, κάλλει καὶ συμμετρίᾳ καὶ ἀληθείᾳ [...] (transl. H. N. Fowler: *if we cannot catch the good with the aid of one idea, let us run it down with three – beauty, proportion, and truth [...]*).

² See D. Ross, *Plato's Theory of Ideas*, p. 242.

³ See W. W. Tait, *Noesis: Plato on Exact Science*, p. 10. The recognition of sensory cognition as an auxiliary cognitive operation during intuitive cognition of essences is the result of acknowledging the theory of anamnesis and understanding cognition as copies of beings in mind.

⁴ According to J. Moravcsik, *Plato and Platonism ...*, p. 33 in Plato, intuition and understanding should be distinguished. On the basis of his analysis of Socrates's behaviour in the *Meno* – by drawing geometric figures in the ground, the philosopher makes a young man recall mathematical knowledge – Moravcsik demonstrates that a true understanding must be a part of that which Plato understood as *techne*. It seems, however, that in this regard an impassable opposition between understanding and intuition does not exist. Writing about the concept of intuition, E. Morawiec, *Intellectual Intuition in the General Metaphysics of Jacques Maritain*, pp. 24–29 states that it can be understood in an operational and static sense. Preparatory actions have been taken for the act of understanding. These operations make up intuition.

other cases, that is appreciation of what justice, goodness, and other ideas are. This is one type of intuitive cognition which is expressed by the act of associating an idea with a word that we use while making statements about things. The other type of intuitive cognition in Plato is the direct experience of an idea during the journey of the soul. Thus in his thought, we can distinguish two types of intuition: supernatural and natural.

Supernatural intuition is the cognition of ideas during the journey which souls make between death and successive births – we will call this primary intuition. It assumes that cognition of essence can be obtained without engaging the body, in an imperturbably direct and comprehensive manner. Natural intuition is a type of cognition used by people in their worldly life and in Plato's language, it consists in evoking an idea (either on the basis of empirical data or as a result of conceptual analysis). This evoking is nothing else than the act of understanding what the essences of things are; for this act would not be possible if in mind there was no faint knowledge of ideas through concepts. Hence it seems legitimate to formulate a hypothesis that in Plato's opinion, natural intuitive cognition consists in associating an idea with the fuzzy content of a concept.

From his point of view, that which is located in our reason must have some cause. Since we are able to judge that objects are equal, just, good, beautiful, strong, etc., we have to know what equality, justice, goodness, beauty, strength, etc., respectively, are (see *Phaedo* 74c & 75a–b). It is similar with other essences like piety and beauty (see *Phaedo* 75c–d). We can become conscious of this knowledge by means of rising above corporeal things and thus entering the world of essences themselves (see *Symposium* 210a–e & 211b–e, *Phaedo* 75e). During this rising, it can be understood what essence is. This understanding constitutes a secondary intuition of essence. Thus we are born with some knowledge¹. It would not exist if a human being did not examine ideas in the underworld. In a narrow sense, secondary intuition consists in associating a fuzzy concept (that is the equal length of two sticks, the equal beauty of bodies and souls) with a proper idea. In Plato's opinion, a concept is genetically derived from an idea – it is its copy and constitutes that which we would call today an objective representation. We use the content of a concept without knowing the essence; it is given to us in a vague manner. Only some of us can use the concept of equality knowing exactly what it is. However, we can identify equal objects without any problem. This fuzzy concept constitutes only a sign by means of which we state something about things, although we do not precisely know what this something is.

¹ In the *Phaedrus*, Socrates does not derive the word *knowledge*, in the phrase *self-knowledge* (246a), from *epistasthai* but from *gignoskein*. See Ch. L. Griswold, *Self-Knowledge in Plato's Phaedrus*, p. 7. Taking into consideration Homeric comparisons of *nous* and *noein* to *gignoskein*, it seems to prove the noetic sources of knowledge. R. Zaborowski, *Some Remarks on Self-Knowledge ...*, pp. 24–25 analysing Plato's *Phaedrus* and Griswold's commentary indicates that in *Griswold's view self-knowledge is not limited to knowing one's own nature but expands to knowing human nature as such. [...] self-knowledge is, in the first place, in a close relation to a way of life, and second, it never loses sight of the individual [...]*. This remark shows that learning depends on the way of life. The realization of knowledge is the result of the learning process. By analogy we can like to speak about intuition as a way to take knowledge out from the soul. People learn to know.

Plato's dialogues usually aim at an adequate presentation of the essence of things through its constant isolation from either too wide or too narrow qualifications. After all, it is about indicating the essence, and somehow encountering it. Following Plato's *Theaetetus*, an analogy between intuitive cognition and sensory cognition can be drawn. Knowing, for example, what an ox is, we do not call it a horse (see *Theaetetus* 190 c), but we are able to affirm that it is an ox. Since Socrates knows Theodorus and Theaetetus, he cannot even think in his mind that Theaetetus is Theodorus (see *Theaetetus* 193a). The acquaintance of both Theaetetus and Theodorus is fundamental for this claim about the impossibility of equating the former with the latter. Identification of a thing is based on a given representation in the mind, which in this case is an image (see *Theaetetus* 191 d). This identification, which consists in recognising an object according to the truth, also constitutes intuition. In this sense, it also appeared in Homer's poetry¹.

In Plato, we can find two major types of representation, which are associated with words like *particular* and *universal*. Particulars are represented by images, whereas essences (i.e. ideas) are represented by universals. An image is a picture impressed in one's mind by a certain thing (an object of perception) (see *Theaetetus* 191d & 192 a–b). Thoughts are copies of objects of sensory as well as intellectual experience, that is *noesis*. The metaphor of the soul as a wax tablet indicates a crucial characteristic of *nous*, that is the capability of experiencing being passively.

Plato determines the act of understanding the essence of being as watching, looking, seeing with the eyes of the soul. It has the same characteristics as supernatural intuition, yet it does not mean that it has the same cognitive *capacity*. However, perfect cognition is given before birth. When Plato mentions the essences that are known through recollection, he uses the term *noema*. This cognition, like cognition before birth, has a purely intellectual character².

A metaphorical description is used to describe the first examination during the journey of the soul as well as the second examination. It allows us to know ideas in the world we live in, because we are born possessing unrealised knowledge of them. A cognitive effort consists in discovery, recognition or secondary cognition of an idea; in Plato's terms, it is a recall of that which we have already learnt in the spiritual world.

Greeks were convinced that the most important of all human senses was the sense of sight. Although it was only Aristotle who formulated this truth in an explicit manner, it is also visible in Plato's works, especially in the *Republic*. Just as the sight perceives that which is small and great, so too the reason (νόησις) perceives smallness and greatness (see *Republic* 524c). The sight perceives things, whereas the reason perceives the essences of things. It gets to know them not being guided by any practical purpose, but by the

¹ See K. von Fritz, *NOOΣ, NOEIN, and their Derivatives in Pre-Socratic Philosophy (Excluding Anaxagoras)*, pp. 21–22.

² According to L. M. de Rijk, *Plato's Sophist ...*, p. 340 Plato makes a reduction to the *pieces of knowledge* in this life acquired by our souls before birth.

purpose of the soul so that it can turn to truth (see *Republic* 525c). The object of reason is (true) being (see *Republic* 534a), an eternal and immutable prototype of things (see *Timaeus* 48e). This intuition (νόησις) is a purely intellectual act of grasping the essence of a thing. Plato uses the following terms to describe it: *to see with the mind* (*Phaedrus* 247c: θεατῆ νῶ), *simple and calm apparition* (*Phaedrus* 250c: ἀπλᾶ καὶ ἀτρεμῆ [...] ἐποπτεύοντες), *in the pure light* (*Phaedrus* 250c: ἐν αὐγῇ καθαρᾷ), *the soul attain[ed] to truth* (*Phaedo* 65b: ἡ ψυχὴ τῆς ἀληθείας ἀπτεται, see also *Theaetetus* 186e: οὐ μέτεστιν ἀληθείας ἀψασθαι), *to see with the mind* (*Phaedo* 83b: ὁρᾶ νοητόν), *to see with the eyes* (*Sophist* 254a: ὀφθῆνα). Plato says about the executive power that it is *the eyes of the soul* (*Sophist* 254a: τὰ γὰρ τῆς [...] ψυχῆς ὄμματα).

The use of the metaphor *the eyes of the soul* seems to prove that for him, intuition, which is a variety of direct cognition, was the most perfect method for intellectual cognition. Apart from sensory direct cognition, he also distinguished purely rational indirect cognition based on conclusions, yet he attributed to it lesser cognitive value. Hence mathematics, which uses this method, is a less perfect type of cognition than philosophy.

Metaphorical expressions of noetic cognition lead us to its non-metaphorical understanding. Plato is not concerned about explaining them in an unambiguous manner. However, one should become conscious of the fundamental characteristics of this cognition and describe in a rather clear way, without metaphors, the content of the notion of intuition. Thus in Plato's works, intuition appears to us as cognition which is (i) purely rational – corresponding to the non-extensible and incorporeal peculiarity of the object of cognition, (ii) direct – presenting this object directly, without any mediation, (iii) comprehensive – presenting its object¹. One should remember the analogy between cognition through the sight of the body and the sight of the soul. Just as with the sense of sight we perceive a corporeal object in a direct way and in its entirety, so too we perceive a non-extensible (incorporeal) object with the eyes of the soul in a direct and comprehensive way.

Hence we would say that just as the eyes of the body are the source of the most perfect of all types of sensory cognition, so too the eyes of the soul are the source of the most perfect of all types of intellectual cognition. Since rational cognition is more perfect than sensory cognition, intuition is the most perfect way of cognition available to humans. In the creation of his theory, Plato clearly initiated a dual understanding of intuition as supernatural direct cognition and innate rational direct cognition. Intuition of the first type is not preceded by preparatory operations, but the object is given directly, somehow from the same level which the soul reaches after death, and its availability

¹ The opposite view takes C. Cheyne, *Knowledge, Cause, and Abstract Objects ...*, pp. 131–132. According to him, the concept of intuition is ambiguous in Plato's dialogues. He indicates that Plato used it with different meanings. A common sense is that man acquires of beliefs by process apparently immediate and non-inferential. Cheyne thinks it is possibility intuition accompanied by another type of cognitive process. We can obtain platonic knowledge among others by intuition as unconscious inference, intuition as direct apprehension of any state of affairs, intuition as part of the process of ordinary perception, intuition of the truth of a certain proposition.

depends only on moral qualifications of a human being acquired during his corporeal life. The one who leads an honest and beautiful life will know the highest ideas. For intuition of the second type, it is required to undertake a number of preparatory cognitive operations, which include, depending on a method selected in a given situation, observation, intellectual analysis, and inference.

The continuator of Plato's theory of supernatural direct cognition was Plotinus, who radicalised the understanding of supernatural intuition. According to Plato, after death the wandering soul is given some ideas that it can perceive. Supernatural intuition is cognition that presents being to some extent from the same spiritual level at which the human soul is located. From Plotinus's point of view, it is rather different. The characteristics of examination are related to emanational ontology. First of all, he separates mind (*nous*) in an ontological sense, understood as the emanation of the One, from multiple cognitive minds. These minds can come to know because they copy the mind – the emanation coming to know the Being. Mind is situated between the soul and the Absolute, and it is identical with the entire intellectual world. It contains all ideas.

Second of all, in Plotinus, the mind (*nous*) is different from the soul. The mind originated from the good, whereas the soul originated from the mind (see *Enneads* V, 8). Therefore, the mind is something more than the soul: it is higher in the hierarchy as being closer to God. Individual souls are related to the soul of the world just as the mind of the world is related to individual minds (see *Enneads* IV, 3, 5).

Intuitive cognition – which is, as in Plato, the examination of Being through the eyes of the soul, inner sight – or which is directly inner sight, requires the improvement of the soul. Wanting to know intuitively, the soul has to rise to the level of the mind. Intuitive cognition requires the achievement of some kind of perfection. In Plotinus, the aim of the moral purification of the soul is to raise it to the level of mind and change its ontic position, which can be achieved following the path of restraint, courage, wisdom, and virtue in general. The purified soul rises to the mind and becomes incorporeal and rational (see *Enneads* I, 6). The preparation for intuition is based on, above all, the elimination of all corporeal desires, and concentration on spiritual goals. It is only then that the soul becomes similar to the mind.

Plotinus's intuition has an emotional–volitional feature and is related to ecstasy. The ecstatic character of intuition lends it mysticism and in Plotinus, as well as in his predecessors, especially Plato, it is juxtaposed with discursive cognition because discourse is always related to matter and change. It concerns that which is divisible and partial, whereas intuition is of a comprehensive character. Comprehensiveness, a characteristic of cognition, is also typical of sensory perception. One should believe that thanks to this characteristic sensory perception, as well as intellectual experience (examination), is attributed the highest degree of certainty, despite problems with intersubjectivity of both the first and the second types of cognition.

Plato's mystic intuition and its later modification created by Plotinus do not have their development in metaphysics or, more generally, in philosophy

which could be called rational. This intuition would rather be used in the mystical theories of the Middle Ages than in philosophical inquiries or the emerging natural sciences.

3. Aristotle and intuition as the source of principles for science and activity

The heir of Plato's conception of rational intuition is Aristotle for whom it constitutes the only cognitive instrument of cognition in knowing the principles that are not subject to argumentation (see *Posterior Analytics* 100b). However, this does not mean that we do not find in his works traces of a mystical, supernatural understanding of intuition. Writing in the *Metaphysics* about the cognition which is characteristic of God, he is convinced that the divine thought and its object are the same and that they create an immutable and indivisible oneness (see *Metaphysics* 1075a). The reason of the Absolute thinks itself through participation in the object of thought, which is accompanied by the state of happiness (see *Metaphysics* 1072b). In a sense, it has an ecstatic dimension.

In Aristotle, two types of rational intuition can be distinguished: theoretical and practical (see *Nicomachean Ethics* 1143b). It may seem that both of them can be described as perception or understanding. Theoretical intuition allows us to accept final premises in the process of theoretical demonstration; it grasps immutable and primary concepts. In reasoning, practical intuition grasps ultimate concepts, strictly speaking that which constitutes the reason of reasoning (see *Nicomachean Ethics* 1143b)¹. In this sense, *nous* is also intellectual intuition and not reasoning².

Just like Plato and Parmenides, Aristotle associates the concept of truth with being, which he, however, understands differently. The objects of intuition are particulars, strictly speaking, that which constitutes in them a principle, or a universal. On the other hand, the results of intuition are principles of thought, for example the principle of non-contradiction.

For him, being is the object of any cognition. It can be a corporeal object; in this sense, he differs from his predecessors for whom being was situated in the realm of transcendence and was of non-extensible character. The term *being* (*to on, to eon*), used by Parmenides and Plato in the singular to denote that which is transcendent, has a different meaning in Aristotle – it means everything which Parmenides and Plato would call *ta onta, pragmata*³.

Aristotle states that we know the truth through thoughts. Thoughts can be always true or they can allow for falseness. The *episteme* kind of knowledge and intellectual intuition (*nous*) will always be true, whereas falseness may appear in opinions (*doxa*) and discursive reasoning (*logismos*). According to Aristotle, *nous* is the most perfect and exact method of cognition. It is even superior to *episteme*. The basis for this view is a conviction that principles are

¹ The cause of action is a decision, whereas the cause of a decision is a desire accompanied by a thought of goal, which could not be possible without intuition (*nous*) and discursive reasoning (*dianoia*).

² See A. W. Price, *Virtue and Reason in Plato and Aristotle*, p. 224, n. 41.

³ See S. Blandzi, *Od aletejologii Parmenidesa do ontoteologii Filona*, p. 29.

better known than inferences drawn from them (see *Posterior Analytics* 100b). In other words, that which is prior and accepted as first is better known than that which is posterior and accepted on the basis of that which was first. The posterior is thus less known and sure than that which is prior. Like his predecessors, Aristotle attached immense importance to direct rational cognition. He juxtaposes intuition and discursive reasoning¹. Intuition (*nous*) enables us to know principles, whereas knowledge consists in argumentation. To expound it in modern language: it includes propositions acknowledged on the basis of propositions already acknowledged. Since the principle of demonstration is not demonstration, the principle of knowledge is not knowledge².

In Aristotle, it is not only about principles of knowledge, but also, maybe above all, about principles of being which are closely related to the former³. In this regard, his philosophy is similar to the one represented by Plato, who often identifies truth with being. According to Aristotle, the truth of being has its causes. That which is the cause of truth in being is the truth in the highest degree. Thus truth constitutes in being a gradable factor. For everything has as much truth as it has being (see *Metaphysics* 993b). One could paraphrase this formula and say that being and truth are alike, which is reminiscent of Parmenidean theory of being. A degree of perfection of being depends on its priority and next, on the order in the sequence of causes, which cannot be infinite. In relation to beings, Aristotle then introduces similar relations as he does in the case of propositions. Principle is the most certain, whereas later propositions, although deduced with reliable syllogisms, are less known and certain. This certainty of first propositions is based on experience and a direct contact with being–principle. Causes are the final ontological principles and, according to him, they do not create an infinite sequence, just as the source of motion is not constituted by an infinite sequence of things in motion. The same applies to goals which cannot extend indefinitely. As Aristotle writes, it cannot be that a man is walking for the sake of health, is healthy for the sake

¹ We can see it in practical reasoning. According to A. W. Price, *Virtue and Reason in Plato and Aristotle*, p. 224: *Aristotle contrasts nous with logos (1143a36–b1). In the case of practical reasoning, it is nous, and not logos, that prompts the starting-point appropriate in the circumstances. And it is striking that nous is here equated with a kind of perception: we must not conceive it as a kind of reasoning that takes perceptual data as its raw materials. The ethically educated agent sees some feature of his situation as salient in a way that prompts him to select an act, say of providing help, as his goal. When Aristotle writes, 'This perception is nous' (b5) he is not reducing such nous to perception. That would overlook that seeing things a certain way may be accompanied by a certainty that things are not so, whereas nous brings conviction. If perception proposes, nous selects. If Aristotle can say 'This perception is nous', this must be because he has in mind the perfectly virtuous agent, who only perceives in this way what he is right to take initially as his goal.*

² Aristotle pays attention to the issue which, in my opinion, until today casts a shadow over the acceptance of the value of intuition for science and philosophy. For him, the value of direct cognition is undisputed since without it there would be no knowledge. If *nous* is dismissed, science should be dismissed too. However, *not to belong to science* does not have a pejorative character, because, as Aristotle underlines, the value of *nous* is higher than the value of knowledge. Later, particularly under the influence of positivism and neopositivism, it will become customary to think that that which cannot be substantiated is unscientific and less significant from a scientific point of view. The status of empirical cognition, of which the results can be quite easily verified, will be enhanced. It does not mean that problems which this intersubjectivity of still subjective empirical experience faces will not be noted. The issue of subjectivity and uniqueness of empirical experience was raised, among others, by K. Ajdukiewicz, *Pragmatic Logic*, pp. 224–227.

³ See Ch. H. Kahn, *The Verb „Be” in Ancient Greek*, p. 368.

of happiness, is happy for the sake of something else; for his act is dictated by the object of another act (see *Metaphysics* 994a). It is similar with essence and its definition, in which a factor irreducible to any other appears – it is expressed by the simplest verbal definition irreducible to another, simpler definition (see *Metaphysics* 994b).

In the quest and discovery of principles, Aristotle adopts Plato's model. *Nous* in the cognition of essence is a cognitive method which culminates in heuristic inductions and is the result of generalisation. The object of sensory perception is individual, but its content is general: the object of sensory cognition is Callias, but the content is a man, not a Callias–man (see *Posterior Analytics* 100a). This general content is known by the reason. The same may be observed in Plato's works. In almost all dialogues, he asks through Socrates's mouth what the essence is, for example, of justice or beauty. When his interlocutor does not give a definition, trying to describe the essence of being with examples – such as a man of piety, justice, etc. – Plato persuades us that it is not an answer to his question, since this is not about specific examples, but about what something is. We can find the echo of this attitude in the works of Aristotle, who specifies this issue by saying that when we are asked *how* something is, we answer that it is good or bad and not that it is a human. When we ask about essence, we ask about *what* something is (see *Metaphysics* 1028b).

Sensory perceptions that lead Aristotle to general knowledge, that is to the principle of things, also constitute an important element in Plato. It is reflected by the path of discovery of the essence of beauty described in the *Symposium* where sensory perception is the basis for cognition of that which is general. In the *Phaedo*, he expresses it even more explicitly, by situating at the same plane a conceptual analysis and sensory perception as two methods leading to the cognition of the idea. Aristotle claims openly that sensory perceptions evoke in us general concepts. In the light of his empiricism, this of course gives rise to a series of questions related to the way of grasping that which is universal in beings. Aristotle discusses these issues in his treatise *On the Soul*. Sensible qualities or sensible forms are the proper objects of perception (see *On the Soul* II, 6, 418a). Noetic forms (*ta noeta*) are potentially present in the senses and imagination because they are also potentially present in the perceived corporeal object (see *On the Soul* II, 4, 430a). According to Kahn, this teaching can be approached from two perspectives: from a metaphysical point of view, according to which Aristotle states that a particular form is immanently located in a sensible image. Therefore, having the perception of an individual, we can know the universal content. From an epistemological point of view, identical forms are potentially present in a poetic capacity, called *the place of forms*. As the principle of potentiality, intellect itself is passive and is capable of assuming intelligible forms¹.

Looking at the process of form cognition from a reasonable point of view, we proceed from that which is more particular to that which is more general.

¹ See Ch. H. Kahn, *The Role of "Nous" ...*, p. 385.

In this sense, the method we use in order to formulate principles is inductive (see *Posterior Analytics* 100b). Writing about metaphysics as a science concerned with principles, Aristotle, unlike Plato, extends the range of applicability of *nous* in the ontic discipline beyond the cognition of essences, with reference to the causes (*aitiai*) of beings that constitute their causes. It is worth underlining that such an approach is possible, first of all, because Aristotle, being in contradiction to the whole tradition existing in his times, accepted the concept of being that was approximate to the modern concept of the object of research. For Parmenides or Plato, being is that which is transcendent and non-extensible. Such being constitutes the essence and principle of things (*pragmata*) and it does not require an indication of its principle. Indeed, one can find in Plato's texts passages where he discusses the hierarchy of beings, in which he places the good, the cause of all ideas, at the top. Nevertheless, the main feature of Plato's *nous* is a direct examination of essence. In contrast, accepting the concept of being as an object and trying to indicate the principles of that which is changeable, Aristotle considers a vaster array of principles, with the principle of existence and the principle of action at the head. Aristotle's *nous* and Plato's *nous* have a slightly different range of connotations.

The model of operation which results in the Aristotelian *nous* is very similar to Plato's approach. According to Aristotle, the concept of being can be understood in a number of ways. A fundamental meaning of *being* is substance. When we define other ontic categories as *being*, it is provoked only by its reference to substance. We pronounce that a specific man can be healthy (condition), high or tall (quantity), good or beautiful (quality), etc. (see *Metaphysics* 1028a). One could travesty it and say that being understood in a number of ways refers to one nature just as that which is beautiful refers to beauty, healthy to health, equal to equality, etc. Aristotle presents a similar model of operation which leads to intuition. The difference is that in Plato, the object of cognition is transcendent being, whereas in Aristotle, it is any thing.

4. Aristotle's attempts at confirming the results of intuition

In Aristotle a new, as compared to Plato, complementary element related to intuitive cognition appears, which is not discussed by the Stagirite directly. It is about that cognition which verifies and confirms the results of intuition. As should be expected, such cognition is supposed to increase the degree of reliability of the results obtained through intuition. The point is that by using other methods than intuition, one can try to substantiate its results. It can be observed, above all, in such principles as the principle of non-contradiction or the principle of the excluded middle. An example of this verification procedure is an elenctic argument for the principle of non-contradiction. Aristotle's intention is to present the absurd consequences of its rejection. According to many scholars, he commits the fallacy of *petitio principii*, trying to substantiate the principle of non-contradiction. In fact, he formulates the so-called elenctic proofs in response to sophists' accusations; as he writes, they are not proofs in a narrow sense but refutations (*ἀποδείξαι ἐλεγκτικῶς*) of the opponent's position in a debate (see *Metaphysics* 1006a), that

is, refutations of an opposite position taken by the opponent (see *Prior Analytics* 66b). Aristotle's elenctic argument requires going beyond the domain of syntactic relations and it does not take into consideration pragmatic interrelations. Substantiation through refutation of the opposite position has, above all, no other than persuasive force. However, it highlights the necessity of accepting the results of the cognition of principles without proof; in this sense, it validates the truthfulness of principle¹.

Aristotle might have realised that intuitive cognition was problematic, so he tried to verify its results. In the same rational and confirmative spirit, one should understand Descartes's and Spinoza's intuition, more recent by several centuries². On the one hand, it is an automatic expression of some truth, but on the other, it can be substantiated in another way than the intuitive. Intuition would be here a certain simplification that could be replaced by indirect, extended cognition. It would be used rather for economical reasons than for the real value of cognition. In this sense, it would be a non-autonomous way of cognition.

If we draw an analogy between intuitive cognition, understood as some kind of intellectual, non-empirical experience (although often preceded by empirical experience) with empirical experience, the validation of the results of experience in the second case is performed through the same empirical experience (conducted under slightly different conditions and at different times or from a slightly different perspective). For instance, Thomist philosophers act in a similar way. When they accept an autonomous value of such cognition in preference to other methods, they verify the results of intuition intuitively. It seems that they are closer to Aristotle's than Descartes' intentions.

The method we choose in order to know a given fragment of the world depends on the formal object of cognition and the established goal. Through empirical experience philosophers know the corporeal world. However, when their object of cognition is that which they consider real but incorporeal, they go beyond the empirical data and use other methods of cognition which, in their opinion, enable an adequate cognition of the object. For Plato, such objects included, for example, ideas. As it seems, cognition based on intuition understood as intellectual experience or understanding of an object is founded on Plato's and Plotinus's principle that the same can be known by the same. Therefore, if in the world there are incorporeal substances, their cognition through the senses is impossible. In the *Republic*, Plato explains how principles can be known. One has to make assumptions constituting stages of cognition which aim at formulating essences themselves, that which is first in

¹ See D. Piętko, *The Elenctic Proof of Aristotle's Principle of Non-contradiction*, pp. 43–44.

² For Descartes, intuition was a purely rational grasping of the object of cognition in which truths appeared in a direct and comprehensive way. Relations between, for example, the following propositions: $2+2=4$, $3+1=4$ and their consequence: $2+2=3+1$ must have been understood intuitively. For Spinoza, intuition may be represented by the fact that when we have a sequence of three integers and the ratio $1:2$ is equal to the ratio $3:x$, we find x , whose value will be in the same ratio to the third number as the second number is to the first number, so quickly that the whole event is represented as an intuitive flash. To find x , we do not need to transform the expression $1:2=3:x$ into $x=(3 \times 2):1$ from which we can recognise the value of x . Thus his intuition would be an instant inference. See M. Bunge, *Intuition and Science*, pp. 5–7.

the order of beings (see *Republic* 511b). It is not possible through direct cognition, which is also purely intellectual. Plato's outline of searching for ontic principles is very similar to Aristotle's way for the cognition of principles. In both Plato and Aristotle, intuition was an instrument of cognition of ontic principles. In Plato, they are constituted by essences (i.e. ideas), whereas in the Stagirite, by forms. Definitions were verbal expressions of ontic principles in the thought of both of them. In this respect, these are coinciding stances.

Depending on the accepted kind of realism, intuition has a disparate range of use, for it may concern only forms constituting individuals, as in Aristotle, or it may concern the world of ideas, as in Plato. Plato observes that he who states that some things are equal must have some knowledge (at least vaguely) about equality (see *Phaedo* 74c & 75a–b). Otherwise, he could not claim that between these two things there is a relation of equality. Similarly, he could not state that someone is just, pious or beautiful if he did not know what justice, piety or beauty were (see *Phaedo* 75c–d). This knowledge can lie in us unconsciously and one can become conscious of it through an analysis of things which leads to the cognition of the world of essences themselves (see *Symposium* 210a–211e & *Phaedo* 75e). The result of this analysis, which ascends from the world of things to the world of ideal beings, is a clear understanding of the essence of things. The object of this act of understanding is independent of the subject of cognition, objective, and transcendent in relation to the things' being – an essence which is neither corporeal nor extensible. Affirming his belief about the correspondence between cognition and being, Plato recognised the thesis that just as through sensory experience of things by nature extensible and corporeal, one can know extensible things, so too through experience of non-extensible mind one can know a non-extensible (spiritual) being. It is about using cognitive power adequate to the object of cognition. Therefore, it is impossible to know that which escapes the senses, but at the same time, the mind cannot directly know that which is corporeal and extensible. Such an approach paves the way for accepting intuition as a way of direct cognition wherever a theoretical factor appears.

Conclusion

Intellectual intuition is a way of cognition valuable for those ancient Greek philosophers who were rationalists, such as Plato seeking sources of cognition in the reason, or genetic empiricists, such as Aristotle, who claimed that the source of cognition was empirical experience. They allowed a type of intellectual cognition whose results cannot be verbalised (Plato's and Plotinus's mystic intuition) or can be expressed linguistically (Plato's and Aristotle's definitions of essence).

The concept of intuition is ambiguous. In the philosophy of ancient Greece, especially in the first great philosophical systems, rational (Parmenides, Plato, Aristotle) and irrational (Plato, Plotinus) intuition can be distinguished. Irrational intuition could be that intuition whose objects are transcendent ideas, or God's intuition whose object of perception is he himself. Hence rational intuition is concerned with either the rudiments of

knowledge or the goals of human activity. Each of its type is characterised by some common features, such as directness, comprehensiveness of cognition, and obviousness. Differences concern the object, its intersubjectivity, and the sources of intuitive cognition.

As to the function and place of intuition in Plato and Aristotle, significant differences can be observed. In Plato, the cognition of essences constitutes the final aim of intuition. He settles for the definition of that which something is. The grasping of essence, that is the grasping of an ontic principle, constitutes the achievement of a cognitive aim. For Aristotle, intuition allows us to accept principles on which the edifice of knowledge is founded. It serves the function of a way of cognition thanks to which first premises of knowledge can be formulated. In this sense, one could perversely treat metaphysics, which is a science about principles (see *Metaphysics* 1003a), as a methodology for sciences. However, the most important difference between Plato's and Aristotle's teachings, to which, as far as I know, no attention has been devoted in the secondary literature, is that the Stagirite introduced the confirmation procedure concerning some of the principles known intuitively. The idea of confirmation is forced by accusations against, for example, the principle of non-contradiction, which made Aristotle present a certain extra-intuitive way for its substantiation.

Bibliography

- Ajdukiewicz K., *Pragmatic Logic*, Dordrecht – Boston – Warsaw 1974.
- Blandzi S., *Od aletejologii Parmenidesa do ontoteologii Filona*, Warszawa 2012.
- Barnes J., *The Presocratic Philosophers*, vol. 1, London 1979.
- Bunge M., *Intuition and Science*, Englewood Cliffs NJ 1962.
- Burnet J., *Early Greek Philosophy*, [4th ed.] London 1930.
- Charles S. R., *The Emergent Metaphysics in Plato's Theory of Disorder*, Lanham MD 2006.
- Cheyne C., *Knowledge, Cause, and Abstract Objects: Causal Objections to Platonism*, Dordrecht 2001.
- Cornford F. M., *Plato's Cosmology*, New York 1937.
- Diels H. & Kranz W., *Die Fragmente der Vorsokratiker*, [6th ed.] Berlin 1951–1952 [= DK].
- Frame D., *The Myth of Return in Early Greek Epic*, Yale 1978.
- Fritz von K., *NOOΣ and NOEIN in the Homeric Poems* in: *Classical Philology* 38, 1943, pp. 79–93.
- Fritz von K., *NOOΣ, NOEIN, and their Derivatives in Pre-Socratic Philosophy (Excluding Anaxagoras)* [1945–1946] in: *The Pre-Socratics: A Collection of Critical Essays*, (ed.) A. P. D. Mourelatos, [2nd ed.] Princeton NJ 1994, pp. 23–85.
- Fuller B. A. G., *History of Greek Philosophy: Thales to Democritus*, New York 1923, pp. 148–153.
- Furth M., *Elements of Eleatic Ontology* in: *The Pre-Socratics: A Collection of Critical Essays*, (ed.) A. P. D. Mourelatos, [2nd ed.] Princeton NJ 1994, pp. 241–270.

- Griswold C. L., *Self-Knowledge in Plato's Phaedrus*, New Haven – London 1986.
- Kahn Ch. H., *The Thesis of Parmenides* in: *The Review of Metaphysics* 22, 4/1969, pp. 701–724.
- Kahn Ch. H., *The Verb „Be” in Ancient Greek*, Dordrecht 1973.
- Kahn Ch. H., *The Role of “Nous” in The Cognition of First Principles in Posterior Analytics II* 19 in: *Studia Aristotelica* 9, 1981, pp. 385–414.
- Komornicka A. M., *Studia nad Pindarem i archaiczną liryką grecką. W kręgu pojęć prawdy i fałszu*, Łódź 1979.
- Moravcsik J., *Plato and Platonism. Plato's Conception of Appearance and Reality in Ontology, Epistemology and Ethic, and Modern Echoes*, Oxford – Cambridge 1992.
- Morawiec E., *Intellectual Intuition in the General Metaphysics of Jacques Maritain*, Frankfurt/Main 2013.
- Mourelatos A. P. D., *The Route of Parmenides*, New Haven CT – London 1970.
- Nagy G., *Sēma and Nōēsis: Some Illustrations* in: *Arethusa* 16, 1983, pp. 35–55.
- Piętka D., *O zasadach niesprzeczności i tożsamości u Parmenidesa* in: *Filozofia Nauki* 9, 3/2001, pp. 49–63.
- Piętka D., *Prawda i fałsz w filozofii języka Platona*, Nowa Wieś 2011.
- Piętka D., *The Elenctic Proof of Aristotle's Principle of Non-contradiction* in: *Archiwum Historii Filozofii i Myśli Społecznej* 57, 2012, pp. 33–45.
- Price A. W., *Virtue and Reason in Plato and Aristotle*, Oxford 2011.
- Rijk de L. M., *Plato's Sophist: A Philosophical Commentary*, Amsterdam – New York 1986.
- Ross D., *Plato's Theory of Ideas*, Oxford 1963.
- Sullivan S. D., *The Psychic Term Noos in Homer and the Homeric Hymns* in: *Studia Italiani di Filologia Classica* 7, 1989, pp. 152–195.
- Tait W. W., *Noesis: Plato on Exact Science* in: *Reading Natural Philosophy: Essays in the History and Philosophy of Science and Mathematics*, (ed.) D. B. Malament, Chicago – La Salle 2002, pp. 11–30.
- Zaborowski R., *Some Remarks on Self-Knowledge in the Phaedrus and Hermias' Commentary* in: *Organon* 45, 2013, pp. 21–33.