The Role of Senses and Sense Perception in Valeriano Magni's Philosophy¹

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1. Introduction

The philosophical quest for the nature and role of sense perception in seventeenth-century philosophy is not reducible to polemics between empiricists and rationalists. Diverse variants of second scholasticism, following to various extents the legacy of Aristotelianism, were still developing in that period. Furthermore, alternatives to second scholasticism, rationalism and empiricism emerged at that time. The philosophical system of the Capuchin monk Valeriano Magni is one of them.² Magni explicitly professes to be following a medieval tradition, but not the one deriving from Aristotle, which he criticized for being atheistic and non-Christian. Rather than to medieval Aristotelians, the masters Magni referred to were St. Augustine and St. Bonaventure. This theological-philosophical orientation was actu-

¹ This study is a result of the research funded by the Czech Science Foundation as the project GA ČR 14-37038G "Between Renaissance and Baroque: Philosophy and Knowledge in the Czech Lands within the Wider European Context".

² Magni is known as an influential ecclesiastical politician, the head of the Czech-Austrian province of the Capuchin order, an adviser to the Prague Cardinal Harrach, the legate of the congregation De propaganda fide in the Czech Lands and Poland, an advocate of Galileo Galilei and a keen opponent of the Jesuit order and Jesuit philosophy. His own philosophy is viewed as being similar to that of René Descartes, although Magni himself never confirmed this affinity. Magni's metaphysics has even been recognized as an anticipation of the transcendentalism of Immanuel Kant. Cf. Sousedík, S., Valerián Magni. Kapitola z kulturních dějin Čech 17. století. Praha, Vyšehrad 1983; cf. the German version Sousedík, S., Valerianus Magni, 1586–1661. Versuch einer Erneuerung der christlichen Philosophie im 17. Jahrhundert. Sankt Augustin, Verlag Hans Richarz 1982; Sousedík, S., Filosofie v českých zemích mezi středověkem a osvícenstvím. Praha, Vyšehrad 1997, pp. 139–161; cf. the German version Sousedík, S., Philosophie der frühen Neuzeit in den böhmischen Ländern. Stuttgart–Bad Cannstatt, Frommann–Holzboog 2009, pp. 114–139; Blum, P. R., Philosophenphilosophie und Schulphilosophie. Typen des Philosophierens in der Neuzeit, Studia Leibnitiana Sonderheft. Stuttgart, F. Steiner 1998, pp. 102–116.

ally prescribed in the documents of his order.³ But despite the obvious textual similarities between Magni's texts and the works of the authorities he praised, Magni differs from them in many points. This is apparent in his elaboration of the conception of sense perception. This paper aims to assess the function Magni attributes to sense perception and how he tries to harmonize it with his new metaphysics and natural philosophy influenced by contemporary non-Aristotelian physics, for Magni's philosophy in general was motivated by his criticism of Aristotelian philosophy and by his effort to incorporate certain achievements of the seventeenth-century science.⁴

2. Emphasis on seeing

Magni's first philosophical work entitled *On Light of Minds and its Image* (*De luce mentium et eius imagine*, 1642)⁵ seems to be a repetition of St. Augustine's and St. Bonaventure's philosophical approach. Indeed, at the very end of his book the Capuchin explicitly refers to the two Fathers and evaluates his own philosophy as merely a continuation of their thought.⁶ Lucas Wadding, the author of the "approbatio" introducing Magni's book, describes it as a mystical treatise derived from St. Bonaventure.⁷ Nevertheless, in his exposition Magni tries to proceed in a distinctive way. From the beginning of his book he constructs his arguments with no reference to any authority

- 3 Elpert, J. B., Kein Bruder soll sich anmassen, ein eigentliches Studium zu verfolgen. Die Kapuziner und die Philosophie ein Streifzug durch die intellektuelle, philosophische Entwicklung des Kapuzinerordens im 16. und frühen 17. Jahrhundert. In: Ebbersmeyer, S. Pirner-Pareschi, H. Ricklin, T. (eds.), Sol et homo. Mensch und Natur in der Renaissance. Festschrift zum 70. Geburtstag für Eckhard Keßler. Paderborn, Wilhelm Fink Verlag 2008, pp. 349–393.
- 4 Magni's theory of sense perception has been analysed by Sousedík, S., Valerián Magni, op. cit., pp. 120–135; Sousedík, S., Valerianus Magni, op. cit., pp. 94–113, shortened in Sousedík, S., Filosofie v českých zemích mezi středověkem a osvícenstvím, op. cit., pp. 150–151; Sousedík, S., Philosophie der frühen Neuzeit in den böhmischen Lündern, op. cit., pp. 127–129. Sousedík's analysis focuses only on seeing in connection with Magni's metaphysics and the issue of self-awareness. In this context see also Blum, P. R., Philosophenphilosophie und Schulphilosophie, p. 105 ff. Cf. da Guspini, M., Il contatto dell'uomo con Dio nell'atto conoscitivo secondo Valeriano Magni, OFMCap. (1586–1661). Collectanea Franciscana, 28, 1958, pp. 241–71, 374–96.
- 5 Published in Rome 1642, Antwerp 1643, and Vienna 1645. A modern critical edition of the Latin text with a Czech translation Magni, V., O Světle mysli a jeho obraze / De Luce mentium et ejus imagine. Ed. M. Klosová – J. Bartoň – T. Nejeschleba. Praha, OIKOYMENH 2016.
- 6 Ibid., cap. 23 and 24. Magni aims to underline his dependence on St. Augustine and St. Bonaventure in Magni, V., De luce mentium et eius imagine ex Sanctis patribus Augustino et Bonaventura ad Bartholomaeum Nigrinum. Viennae Austriae, Matthaeus Rictius 1645.
- 7 Magni, V., De Luce Mentium et Eius Imagine. Roma, Franciscus Caballus 1642, p. 4: "Argumentum continet non adeo novum, quin a S. Bonaventura, aliisque asceticis viris fuerit praemonstratum." Wadding, who preferred the Scotistic tradition, aimed to deal with Magni's book only as with a mystical treatise and neglected its philosophical meaning. Cf. Blum, P. R., Philosophen-philosophie und Schulphilosophie, op. cit., p. 109.

and aims to follow only the analysis of his own cognitive experience. After a short introduction explaining what light of minds means and how it accords with the Christian way of thinking, Magni strives to construct his philosophy independently of the indicated sources. He begins his exposition with a description of sense perception.

Magni's description of sense perception in his first philosophical work is quite short, comprising only one brief chapter.8 Despite its shortness, the chapter's position in the structure of the entire book is not negligible, for it enables Magni to differentiate between sensible and intellectual cognition by means of the distinction between their objects. While the object of sense perception are bodies (corpora), the object of intellection is being.9 In this common scholastic doctrine, following the classical enumeration of the five sense organs and the five sense faculties, Magni places an unusual emphasis on sight. Only by means of sight can one have cognition of bodies as such, 10 i.e., of their mass, figure, and colour. 11 The other sense faculties, hearing, taste. smell and touch, do not cognize bodies as such but merely some of their qualities. Thus, they do not mediate cognition of things (corpora), but cause delightedness or displeasure in the cognizing person.¹²

Although Magni does not use this terminology, the differentiation between the objects of the sense faculties resembles the early modern distinction between primary and secondary qualities. Magni's use of this distinction has a specific impact on his philosophical system with important consequences. Firstly, the extension of bodies is underscored as their main feature, 13 although Magni also adds colour to the list of data characterizing bodies as such. While in early modern philosophy colour is usually regarded as a secondary quality, Magni holds a different view, which displays his notion of sight and his metaphysics of light, as we will see later.

⁸ Magni, V., O Světle mysli a jeho obraze / De Luce mentium et ejus imagine, op. cit., cap. 2, pp. 46-

⁹ Ibid., p. 46–50: "Corpora sunt totale subjectum cognitionis sensitivae ... Ens est totale subjectum intellectivae cognitionis."

¹⁰ Ibid., p. 46: "Corpora vero qua corpora, si non sint a luce illuminata, sunt invisibilia."

¹¹ Ibid.: "Speciem colouris..., et consequenter datae corporeae molis et figurae..."

¹² Ibid.: "reliquas sensibiles qualitates sensu [i.e. sight] non cognoscimus, sed inde sentimus jucunditatem vel molestiam."

¹³ The emphasis on extensionality seems to be similar to René Descartes, whose Meditations were published one year before Magni's first philosophical work. Indeed, Marin Mersenne, who read Magni's De Luce mentium and whom Magni met in Rome in 1645, recommended that he reads Cartesius, seeing certain similarities between the two authors. However, Magni was not interested. Cf. Blum, P. R., Philosophenphilosophie und Schulphilosophie, op. cit., p. 116. For Magni the extensionality of bodies is not a result of mental abstraction, as in Descartes's Second Meditation, but coincides with the main features of his metaphysics of light. Magni later followed corpuscular theories in the field of natural philosophy. In all probability, a crucial inspiration for his physics came from reading Galileo Galilei, William Gilbert and Jan Baptist van Helmont.

Secondly, the emphasis on sight and therefore on light is significant for Magni's approach to sense perception. This moment is even more important than the first one, not only for the topic of sense perception, but for Magni's philosophy in general. In sense cognition, light is the precondition of seeing, because bodies are not visible and thus not cognizable, if they are not illuminated by light. Without illumination by physical light or sensible light (*lux sensibilis*) one would only have knowledge of qualities of bodies and not of bodies as such.¹⁴

Magni does not go any further to analyse sense perception in greater depth, but quickly moves from the senses and physical light to the intellect and mental light. Later, in his treatise *Per se notis* of 1648, 15 which also became a part of his last work *Opus philosophicum* of 1660, ¹⁶ Magni devotes some chapters to a description of the senses and sense perception.¹⁷ The fundamental distinction between seeing and the other senses and sense faculties is attributed to a difference between soul and body. The senses of touch, taste, smell, and hearing are connected with the body, while the sense of sight, although it has a corporeal organ - the eye (oculus), is linked to the rational soul, which is of a luminous nature. Thus, the qualities of external bodies, grasped by the former four senses, cause delightedness or displeasure on the bodily level, while light as light cognized by seeing does not induce such affections. All bodily affections coming from light must be reduced to the sense of touch.¹⁸ It does not mean, however, that seeing could not cause pleasure or displeasure in the cognizing person. There is a difference, according to Magni, between the likes and dislikes associated with the centre of human nature, and the likes and dislikes related to the convenience or inconvenience of the human body.19

¹⁴ Magni, V., O Světle Mysli a Jeho Obraze / De Luce Mentium et Ejus Imagine, op. cit., p. 46: "Non tamen lux illuminat sonum, odorem, saporem, calorem, frigiditatem, humiditatem, siccitatem et alia ejusmodi: haec enim non sunt corpora, sed qualitates in corporibus, quae oculis clausis percipi possunt."

¹⁵ Magni, V., Tractatus de per se notis. Virgini Deiparae dicatus. Warsawiae, Petrus Elert 1648. Published also as a part of Valerian Magni, Philosophiae Virgini Deiparae dicatae pars prima, in qua tractatus de peripatu, de logica, de per se notis, de syllogismo demonstrativo. Warsawiae, Petrus Elert 1648.

¹⁶ Magni, V., *Opus Philosophicum*. Lithomisslii, Joannes Arnold 1660, as a part of "Metaphysica Valeriani Magni", tractatus 10 "Per se nota ex sui conscientia".

¹⁷ Magni, V., Tractatus de per se notis. Lib. 2, cap. 19–24, pp. 128–154; Magni, V., Opus Philosophicum, pars 3, tr. 10, cap. 19–24, pp. 66–82.

¹⁸ Ibid., 71: "Lux qua lux, nullam iucunditatem, aut molestiam inducit in ullam partem mei corporis, imo nec in pupillam ipsam. Sane afficit, ut est calefaciens, aut dissipans visivos in oculo: qui affectus reducuntur ad sensum tactus. Ut vero est lux, nullo modo afficit meum oculum, nullam enim affectionem a luce, qua est lux, experior in oculo."

¹⁹ Ibid.: "Distinguo enim vivivacissime illa, quae mihi placent, aut displicent respective ad meam intimam naturam, ab illis, quae mihi placent, aut displicent, velut quae conventiant, aut disconveniant meo corpori."

Cognition of external bodies by means of sight arouses love, provided that the object is beautiful and therefore pleasant, or hate, if the object is ugly (deformitas) and consequently annoying (molestus). Loves and hates are not related to the body, says Magni, but are rooted in human nature, which is an image of Reason and is animated by light.²⁰ These "vital" affections are the result of a twofold illumination. One is coming from outside, from external bodies, and we are naturally immersed in this light. The other one is the illumination of immanent light, which is the light of minds enabling us to judge all things.21

Thus, sense perception with respect to sight has a twofold origin, as it was appropriately described by Stanislav Sousedík.²² An external body, provided it is illuminated by physical light, sends a sensible image to the eye, which is grasped by our very nature, i.e., by the soul. By means of this process the soul becomes an image very similar to the external object, which is the source of the light. Simultaneously the soul itself becomes this light, which is received by the soul. The soul, which has become light, cognizes by means of this light and also comes to cognize its own nature and therefore attains self-awareness.²³ Visual sense cognition leads to the knowledge that the cognizing person existed before the sense cognition.²⁴ Magni stresses many times that he does not want to dwell on sensible light, but intends to move forward to intelligible light. This is precisely why seeing, being the most excellent kind of sense cognition, plays a crucial role in Magni's philosophy and analysing it leads to the core of his thought. It fulfils Magni's main goal, which consists in the ambition to create a philosophical system alternative to Aristotelian philosophy with the help of the metaphysics of light.

²⁰ Ibid., 72: "... ii affectus vitales radicantur in mea ipsissima natura, quaetenus est vel imago Rationis, vel parturiens indeficienter molem infinitam, vel vivificabilis a luce."

²¹ Ibid., 65–66: "Id vero est pote parturire ex se, non solum lumen mihi immanens, vicarium apud me ipsius Rationis, regulamque censendi de omni ente, verum et parturio sphaeram infinitam molis indivisibilis, tribuentem mihi imaginari molem corpoream... Id vero meae entitatis, est natum tingi a luce, quae vitiatur in gremio molis corporea, nec simpliciter tingor, sed evado in lumen, vicarium apud me eius lucis, a qua sui tinctus, et eatenus nosco colourata, seu lucida."

²² Sousedík, S., Valerián Magni, op. cit., p. 120; Sousedík, S., Valerianus Magni, 1586–1661, op. cit.,

²³ Magni, V., O Světle mysli / De Luce mentium, op. cit., cap. 20, pp. 122–127.

²⁴ Magni, V., Opus Philosophicum, Pars III, tr. 10, cap. 3, p. 21. "Animadverto autem, quod ego mutatus de illis tenebris ad illa lumina, non puto, me mutari de mera non entitate ad illam entitatem luminosam; sed sic mutor, conscius, me praeexistere illi illumination." Cf. Blum, P. R., Philosophenphilosophie und Schulphilosophie, op. cit., p. 107.

3. Anti-Aristotelianism and metaphysics of light

Anti-Aristotelianism is a recurrent motive in Valeriano Magni's philosophy²⁵ culminating in his *Opus philosophicum*. The emphasis on seeing can also be ascribed to Magni's disagreement with Aristotelian philosophy. Aristotle places the sense of touch in the centre of his epistemology, on the grounds that it is the most basic of the senses and the only one common to all animals (*De Anima* 413b 4-10), and even the only sense connected with existence as such, while the others are good for well-being but an animal can exist without them (*De anima* 3.13).²⁶ Magni, as a critic of Aristotle, changes the perspective and highlights the sense of sight for its cognitive power. The touch and the other three senses do not mediate cognition of things.

The reason why Magni accentuates sight and marginalizes the other sense faculties consists in his Platonic metaphysics. Magni holds that the mind flies through two realms: the realm of existing external things, i.e., bodies, and the realm of ideas.²⁷ Since bodies are characterized by extension (mass and figure) and colour, they can only be cognized by sight.

The priority given to sight is also a result of Magni's endorsement of the Augustinian ontological superiority of the soul, which he literally and not only analogically understands as light. The Augustinian conception of the light of minds constitutes the background of his theory of sense cognition.²⁸ In this point was Magni also influenced by St. Bonaventure and his metaphysics of light. Magni explicitly states that his philosophy was inspired by reading Bonaventure's *The Journey of the Mind into God (Itinerarium mentis in Deum)*. God, as Magni summarizes St. Bonaventure's approach, is the light of minds and is known to the human intellect *per se*, while humans are its image.²⁹

²⁵ Magni was not the only scholar in the Czech Lands to criticize Aristotelianism in the given period. Jan Marcus Marci of Kronland, a Czech physician and philosopher connected to Prague Archbishop Harrach, like Magni, tried to replace Aristotelian philosophy with an alternative philosophical system. Contrary to Magni, Marci's philosophy is based on hylozoism, cf. Sousedík, S., Philosophie der frühen Neuzeit in den Böhmischen Ländern, op. cit.; Giglioni, G., Panpsychism versus Hylozoism: An Interpretation of Some Seventeenth-Century Doctrines of Universal Animation. Acta Comeniana 35, 1995, pp. 25–43.

²⁶ Cf. Freeland, C., Aristotle on the Sense of Touch. In: Nussbaum, M. – Rorty, A. (eds.), Essays on Aristotle's de Anima. Oxford, Oxford University Press 1992, pp. 227–248; Massie, P., Touching, Thinking, Being: The Sense of Touch in Aristotle's De Anima and Its Implications, Minerva – An Internet Journal of Philosophy, 17, 2013, p. 74–101.

²⁷ Magni, V., O Světle mysli / De Luce mentium, op. cit., cap. 10, pp. 66–71.

²⁸ Magni adopts the term *lux mentium* from St. Augustine, who uses it as an equivalent for God, see Augustin, Confessiones XI,11,13 (CCL 27,200).

²⁹ Magni, V., O Světle mysli / De Luce mentium, op. cit., cap. 24, pp. 148–161.

But Magni did not follow Bonaventure in his exposition of sense perception, since regarding sense cognition the Franciscan master had followed Aristotle. For Bonaventure, Aristotle was the main authority on cognition of the external world. Bonaventure praises Plato as a master of wisdom (sapientia), since he directed his gaze to the realm of the immutable ideas in heaven, while disregarding the world of sensible variety. Aristotle, in contrast, is for Bonaventure a master of "science" (scientia), because he dealt with the empirical world while at the same time failing to grasp the realm of unchangeability.30 For Magni, on the contrary, Aristotle cannot be an authority in any field, not even epistemology or natural philosophy, because he is essentially an atheist.31

Although the Capuchin professes to be an implacable opponent of Aristotle, he actually adopts certain aspects of Peripatetic philosophy. Following the Aristotelian tradition, Magni bases the connection between the senses and the intellect in the scholastic theory of *species intelligibilis*. According to Magni, cognition is strictly intentional in character. It is impossible, Magni states, for things as such to come to the human mind and become identical with it. Cognition only proceeds by means of images. There is a difference between the light (*lumen*) of the object in the pupil and the light of the object in the soul, because of the difference between the pupil and the soul.³² Who does not know this distinction, does not know philosophy, Magni adds in his first philosophical work *De luce mentium*. In his last philosophical work *Opus* philosophicum Magni once again emphasizes the intentionality of the object of sense cognition. The object of sense cognition is not an actual lion, but an image of it which represents the actual lion. The soul is in a certain sense identical with this image and this is the way we cognize actual things.³³

³⁰ Bonaventure ultimately exalts St. Augustine as the Church Father who transcended the two traditions by connecting them. Nonetheless, Bonaventure incorporated many features of Aristotelian philosophy into his thought. Bonaventura, Sermo IV. Christus Unus Omnium Magister. In: S. Bonaventurae Opera Omnia, vol. 5, Quaracchi, Collegium S. Bonaventurae 1891, p. 572.

³¹ Magni, V., De Atheismo Aristotelis. In: Magni, V., Admiranda de vacuo et Aristotelis philosophia, Valeriani Magni demonstratio ocularis de possibilitate vacui. Warsawiae, Petrus Elert 1547, pp. 62-70. Cf. Ochman, J., Walerian Magni (1586-1661) jako krytyk ateizmu Arystotelesa. Euhemer - Preglad Religioznawczy, 89, 1973, No. 3, pp. 25-34.

³² Here Magni refers to the old physiological notion that an image of the body is transmitted by light from the body to the observer's pupil. At the time when Magni's book was published this concept had already been superseded by Johannes Kepler's optics, which advanced the idea that the image of the body is formed at the retina. Magni evidently did not adopt this conclusion of Kepler's new optic theory, although he probably knew Kepler personally, since they could have met in Linz, cf. Bloth, H. G., Der Kapuziner Valerian Magni und sein Kampf gegen den Jesuitenorden. Materialdienst des Konfessionskundlichen Instituts Evangelischer Bund – Konfessionskundliches Institut Bensheim 7, 1956, No. 5, pp. 81–86.

³³ Magni, V., Opus Philosophicum, op. cit., tr. 10, p. 30.

Magni distinguishes between sensible images and intelligible images: sensible images are representations of things. They are available not only to humans but also to animals. But animals are not able to differentiate between a sensible image and the thing which is represented by the image. As opposed to sensible images, intelligible images are only accessible to humans. In contrast to animals, humans are able to compare a sensible image with an intelligible image and judge its veracity. Thus, there are two types of cognition. One is simple apprehension, which consists in an image representing the cognizable thing, while the other type is only characteristic for humans and consists of affirmation and negation.³⁴

Light plays a specific role in sense cognition, as we have seen. The meaning of light is underscored in the second type of cognition, which Magni sometimes calls judgement (*judicium*, *dijudicare*). Humans are able to judge because they are images of God described as the light of minds. By means of an intelligible image, a human mind judges the veracity of a sensible image as a representation of a thing as such. Was this image created by the human mind or is it somehow innate? Magni gives the example of the cognition of Peter. If we see a man who looks like Peter, we cannot compare his image with Peter himself, but have to create a new image and then compare it with another one which we already had in mind. Magni holds that this image has the function of an idea, by means of which we judge. ³⁵ It still does not mean, however, that the idea of Peter was innate. It could have been and probably had been created by the human mind.

Magni eventually specifies a third type of cognition, after apprehension and judgment. He calls this type 'definition', which consists in the knowledge of a perfect thing, through which we define the participation of things in their perfection.³⁶ Definition is therefore a different kind of cognition than judgment, since by means of definition we do not cognize things but the

³⁴ Magni, V., O Světle mysli / De Luce mentium, op. cit., pp. 52–54: "Porro imago, quam cognoscenda imitantur, vel est sensibilis, vel est intelligibilis. ... Quid vero intersit cognitionem, quae fit per imaginem supponentem pro imaginato et per imaginem, cui comparamus, quae illi similia videntur, liquido constat ex dictis: nimirum, illa cognitio est apprehensio simplex; haec vero est affirmatio et negatio. Illa convenit brutis, haec est illis impossibilis: Nos vero homines cognoscimus ut bruta per speciem supponentem; et cognita comparamus cum imagine, unde censemus de rei veritate et falsitate."

³⁵ Ibid.: "Porro imago necessario ponitur ve|lut idea, ex qua censemus v. g. hunc hominem esse Petrum."

³⁶ Ibid., cap. 6, pp. 54–57: "Demum est tertius modus humanae cognitionis; cum videlicet ex notitia rei perfectae definimus omnia illa, quae eam perfectionem participant: v. g. si sit censendum de corporali pulchritudine multarum personarum, id fieri nequit citra errorem, nisi praecognoscamus perfectam pulchritudinem, ex qua definimus, quid pulchritudinis participet..."

degree of their participation in their perfection.³⁷ Magni gives the example of perfect beauty, which does not represent a beautiful thing, in contrast to sensible and intelligible images, which we can identify with things as such.

To explain it better one would have to return to Magni's concept of light derived from St. Augustine's and St. Bonaventure's metaphysics of light, which the Capuchin thinker tries to elaborate into a comprehensive system. For Magni there is an analogy between physical and mental light, since both enable a kind of cognition, either an act of sense cognition or mental acts of cognition. Physical light is a condition of the sense cognition of bodies, i.e., of apprehension. Bodies are visible only in light. Analogically, mental light is a condition of judgment and definition. Humans can judge or define only in the light of the mind. Both lights are connected by the Augustinian conception of God as the light of minds. Finally, Magni argues for an identity between the light of sense cognition and the light of intellection. They both have one source, God as light, who is the creator of external things.

4. Presence or absence of Augustinian sense perception

With respect to the influence of St. Augustine, one can ask if Magni also follows Augustine's theory of sense perception. It is known that Augustine did not elaborate his conception of sense perception systematically. Two main tendencies can be found in his approach and both were discussed in medieval philosophy. First, it seems that, due to the ontological superiority of the soul, sense cognition is not passive. An external body causes changes in the human body which the soul actively apprehends. The alternative Augustinian theory is a theory of extramission: the soul sends out visual rays which reach external objects.38

As for the latter, Magni does not seem to follow the explanation of sense perception by means of extramission. On the contrary, it is the external object which emits its image. The image is visible provided that it is illuminated by physical light. The quality of visual sense perception changes according to the intensity of light, for instance of the sun's rays.³⁹

³⁷ Ibid., p. 56: "Porro censere ex notitia perfecti in aliquo genere perfectionis de iis, quae eam perfectionem non adaequant, sed participant; dixi esse non tam cognoscere, quam definire: id enim cognoscendo definitur, de quo scitur id, quod est, et ea, quae eidem desunt."

³⁸ On Augustinian theories and their reception in the Middle Ages see Toivanen, J. - Silva, J. F., The Active Nature of the Soul in Sense Perception: Robert Kilwardby and Peter Olivi. Vivarium, 48, 2010, No. 3, pp. 245-278.

³⁹ Cf. Magni, V., O Světle mysli / De Luce mentium, op. cit., cap. 9, pp. 62–65.

Nevertheless, the theory of extramission does echo in Magni's so called thought experiments.⁴⁰ In the book *De luce mentium* Magni forms the hypothesis that light is emitted from the eyes. Then, if a man were in a cell illuminated by no light, his eyes would emit light illuminating everything in the room. This thought experiment does not serve to confirm or refute the theory of extramission. Its goal is to show that light is a condition of cognition, but is not cognizable as such. The man in the cell whose eyes would emit light would see the cell and the objects inside it but not the light of his eyes, Magni concludes.⁴¹

But the other Augustinian theory of sense perception, which assumes that the soul is active resonates in Magni's philosophy, although he explicitly describes sense perception as passive. A body emits an image which is passively received by the eyes.⁴² On the other hand, by means of sense perception the soul not only passively receives an image, but it simultaneously actively becomes light, as pointed out above. Thus, sense perception, reduced to seeing, has both a passive and an active aspect.

The soul's activity in sense perception can also be deduced from Magni's conception of judgement. St. Bonaventure in his *Journey of the Mind into God* considers judgement (*dijudication*) as an activity producing sensible species, which are received by the senses, to enter the intellective power.⁴³ Bonaventure's notion had been adopted by certain Renaissance philosophers⁴⁴ and

- 40 Magni characterizes the analysis of cognition generally as a "mental experiment" (experimentum mentale), meaning an experience of thinking, cf. Magni, V., O Světle mysli / De Luce mentium, op. cit., cap. 19, p. 120, but he also designs thought experiments in the modern sense. The word "experimentum" is ambiguous in the early modern period, it can signify experience as such, i.e., how things happen in nature, or physical experiments with manifold definitions. Valeriano Magni used both the word "demonstratio ocularis", see below in the text, and "experimentum" to describe his "experience" and "experiments", cf. Magni, V., Experimenta de Incorruptibilitate Aquae. Ad Peripateticum Cosmopolitam Virgini Deiparae Ex Voto Dicata. Warsawiae, Petrus Elert 1648.
- 41 Magni, V., O Světle mysli / De Luce mentium, op. cit., cap. 12, p. 78: "Cogita ergo, Francisce, quid foret, si homo propagaret lumen ex oculis propriis; isque foret constitutus in conclavi, in quo nullum sit lumen praeter illud, quod manat ab oculis hominis illius. Hic suis lucentibus oculis illuminaret conclave et quae in eo continentur: puta parietes, fenestras, januam, mensam, scabella, vasa, libros et alia ejusmodi; quae omnia videret ac discerneret beneficio illius lucis, quam emittit ex propriis oculis: nec tamen is posset eam lucem suis oculis insidentem intueri; sed duntaxat a ea, quae per illam redduntur visibilia."
- 42 Magni, V., Opus Philosophicum, op. cit., Pars 3, tr. 10, cap. 1, p. 18: "Corpus lucens, obiectum meo oculo, producit in illum lumen sibi simile, quod passive suscipitur in oculo."
- 43 Bonaventura, Itinerarium Mentis in Deum. In: *S. Bonaventurae Opera Omnia*, vol. 5, Quaracchi, Collegium S. Bonaventurae 1891, cap. 2, 6, p. 301. "Diiudicatio igilur est actio, quae speciem sensibilem, sensibiliter per sensus acceptam introire facit depurando et abstrahendo in potentiam intellectivam."
- 44 Leen Spruit has identified Francesco Piccolomini and Jacopo Zabarella as followers of Bonaventure's doctrine, Nicolas of Cusa also shared a similar view. Spruit, L., Renaissance Views of Active Perception. In: Knuuttila, S. Kärkkäinen, P. (eds.), Theories of Perception in Medieval and

Magni also evidently borrowed it from his master. But Magni did not radicalize the conception of judgement as his Renaissance predecessors did, who even held judgement to be an activity by which species are produced. For Magni, judgement is an activity of the human soul which compares the image of a thing with a similar image and distinguishes between the different aspects of the cognized body, which are contracted in one object seen by the eyes. Tonly by means of this activity is the human soul able to differentiate between figure and colour, longitude and latitude, air and water, etc.

5. Certitude of sense perception

Magni's theory of cognition comprises strong subjectivist tendencies, stemming from the ontological superiority of the human soul and culminating in his conception of "I-ness" (egoitas). Magni points out that he is doing his own philosophy by means of an analysis of his own cognitive activities. This approach can lead to "soloeicism", as Magni calls his own position stressing that he is an image of God.⁴⁸ This approach could give rise to a question concerning the existence of the external world. 49 Valeriano Magni did not explicitly ask this question, although the object of sense cognition is actually not an external thing itself, but its image. In any case, Magni did not doubt the existence of the external world, and he even had no doubts concerning the correctness of the data coming from the sense organs and sense activities. Unlike his contemporary Descartes, sensory illusions do not occupy any place in his philosophy. In his first philosophical work *De luce mentium* Magni indicates that the credibility of information derived from the senses does not, in his view, originate in the senses, but in the activity of the human mind, which considers their truthfulness in the light of mental light.

Several years later Magni had an opportunity to elaborate his theory of sense perception from this point of view. The challenge appeared in the context of his experiments with a vacuum in 1648, which provoked great

Early Modern Philosophy. Dordrecht, Springer 2008, p. 205. As concerns Paduan Aristotelianism, the archive of the Capuchin order in Vienna, housing Valeriano Magni's manuscripts, contains an excerpt from Jacopo Zabarella's Compendium naturalis philosophiae. The manuscript documents that Magni was interested in Zabarella's theory of cognition including the concept of species intelligibilis.

- 45 This is Francesco Piccolomini's conception, cf. ibid., 220.
- 46 Magni, V., O Světle mysli / De Luce mentium, op. cit., cap. 5, p. 54.
- 47 Ibid., cap. 9, p. 62: "Unde habemus, mi Francisce, quod tot entia invicem distinguamus, quae brutum convoluit in unicum objectum oculo corporali visum?"
- 48 Ibid., cap. 22, p. 134: "Deum intelligo citra illationem; sed per speciem, quam (indulge soloecismo) ego ipse sum."
- 49 Cf. Sousedík, S., Valerianus Magni, 1586–1661, op. cit., pp. 95–99; Sousedík, S., Valerián Magni, op. cit., pp. 121–124.

discussion and Magni published first a description of his experiment proving the existence of a void, and then also his answers to various objections. With respect to the present topic, two aspects of his vacuum treatises need to be mentioned. First, Magni saw the philosophical foundation of void experiments in his book on the light of minds. Second, Magni speaks not of experiments, but of a demonstration accessible to the sight (demonstratio ocularis).

By means of the sight, Magni demonstrated three different truths: the existence of a vacuum in a tube, the slow movement of a body in a void, and finally the existence of light in a place where there is nothing but a void. These three facts contradict Peripatetic natural philosophy and prove the untenability of Aristotelianism. One of Magni's opponents from the camp of Aristotelian philosophers, Johannes Broscius of Krakow, speculates about the extent in which Magni trusts sense observation. Is he aware of the fact, Broscius asks, that the senses can be erroneous, as Rene Descartes and Johannes Kepler have persuasively shown?⁵¹

In his response, Magni does not attempt to justify the senses as a source of truth, but maintains that he does not demonstrate the existence of a void by means of the senses, but through the intellect. A corporeal eye cannot grasp a void, only the light of the mind can come to the conclusion that what is observable in a tube is a void.⁵² The experiments proving the existence of a void primarily helped Magni to emphasize the crucial significance of light. They demonstrate that light is not only an epistemological and ontological principle, but also a fundamental principle in nature. They indicate that the light existing in a void is not an accident of body and is not dependent on matter.

⁵⁰ Magni, V., Demonstratio ocularis Loci sine locato: Corporis successive moti in Vacuo: Luminis nulli corpori inhaerentis. Warsawiae, Petrus Elert 1647. The treatise was republished eight times. Cf. Dear, P., Discipline and Experience: The Mathematical Way in the Scientific Revolution. Chicago, University of Chicago Press 1995, pp. 187–90; cf. Gorman, M. J., Jesuit Explorations of the Torricellian Space: Carp-Bladders and Sulphurous Fumes. Mélanges de l'Ecole Française de Rome. Italie et Méditerranée, 106, 1994, No. 1, pp. 7–32; Nejeschleba, T., Valerian Magni (1586–1661) o vakuu. Dějiny vědy a techniky, 48, 2015, No. 3, pp. 135–150; on the dissemination of Magni's experiments with the void see Blum, P. R., In Fugam Vacui – Avoiding the Void in Baroque Thought. Quaestio – Yearbook of the History of Metaphysics, fortcoming; Leinsle, U. G., 'In Agro Norbertino-Thomistico'. P. Dominicus Aurhammer OP als Professor in Marchtal 1652–1653. Annalecta Praemonstratensia, 88, 2012, pp. 42–67.

⁵¹ Cygan, J., Der Streit Jan Brozeks, Professor der Krakauer Akademie, mit Valerian Magni, Kapuziner, zu der Möglichkeit des Daseins der Leere in der Natur. *Monumenta Guerickiana*, 83, 2002, No. 9/10, pp. 92–100.

⁵² Magni, V., Demonstratio ocularis Loci sine locato. Venetiis, Typis Herzianis 1649, p. 26: "Fateor, inquam, vacuum non esse visibile oculo corporali, ac visibile est oculo mentis hominis illius, qui oculo corporis intuetur meam fistulam."

Provoked by polemics concerning the vacuum, Magni returned to the issue of sense perception in the treatise *Per se notis*, ⁵³ in which he follows up on the expositions of his first philosophical work *De luce mentium*. "Per se notum" is a traditional label applied to a proposition or a principle which is evident without a proof. In medieval philosophy the discussion about "per se notum" focused on the issue of the existence of God.⁵⁴ Valeriano Magni also paid attention to this problem,⁵⁵ but his notion of "per se notum" was broader and included also the issue of sense perception. Magni enumerates four types of "per se nota", based on the difference between two kinds of cognition, which he calls direct and reflexive.⁵⁶ Another difference comes from the distinction between sense cognition and intellectual cognition. In sum, there are direct "per se nota" of the senses and of the intellect, and reflexive "per se nota", which are movements of sensation and of intellection. Magni gives examples of every kind of "per se notum": "I see the sun" is a direct per se notum of the senses, and "I am aware that I see the sun", i.e., "I am aware that I have an image of the sun", is a reflexive per se notum of sensation. The proposition "every whole is greater than its part" is known per se as an example of a direct per se notum of the intellect and "I am aware that I know that every whole is greater than its part" is a reflexive per se notum of intellection.57

While the certitude of the senses is limited to seeing, by which humans cognize the essential features of external bodies, their extension (longitude, latitude, figure, mass) and colour,58 the certitude of sensation includes not only sight, but also touch, taste, smell, hearing, and the affections caused by them, of which one is aware. 59 On the part of intellection there is a certitude of the traditional principles known per se and thus immutable, 60 and a certi-

⁵³ Cf. above, note no 15 and 16.

⁵⁴ Cf. Tuninetti, L. F., "Per se notum". Die logische Beschaffenheit des Selbstverständlichen im Denken des Thomas von Aquin. Leiden, Bril 1996.

⁵⁵ Sousedík, S., Valerián Magni, op. cit., pp. 139–144; Sousedík, S., Valerianus Magni, 1586–1661, op. cit., pp. 118-122; da Guspini, M., La conoscenza di Dio in Valeriano Magni. Possibilità di una conoscenza intuitiva? Collectanea Franciscana, 30, 1960, pp. 264–297.

⁵⁶ Magni, V., Opus Philosophicum, op. cit., Pars III, tr. 9, p. 8: "Noscuntur autem actu directo vel reflexo."

⁵⁷ Ibid.: "Nos cognoscimus et sensu et intellectu. Hinc quattuor differentiae per se notorum, scilicet, primo-nota per sensum, v. g. Sol visus. Primo-nota per intellectum, ut Totum est maius sua parte. Meae sensationes mihi per se notae, v. g. Sum conscius, me videre Solem, sum conscius, me imaginari Solem. Demum meae intellectiones; sum conscius, me intelligere, quod Totum sit maius sua parte."

⁵⁸ Ibid.: "Ad primo-nota referuntur Corpora, eorumque longitudo, latitudo, profunditas, moles, figura, lux, colour, et si quae sunt alia eiusmodi."

⁵⁹ Ibid., p. 9: "Ad motus sensitivos spectant videre, audire, olfacere, gustare, tangere, imaginari, amare, odisse, gaudere, tristari, irasci et alii eiusmodi affectus."

⁶⁰ Ibid.: "Ad primo-intellecta spectant per se notae propositiones incommutabiles."

tude of the movements of intellections and affections referring to the object as it is intelligible: speaking, judging, reasoning, loving, hating etc.⁶¹

6. Conclusion: Sense perception and metaphysics of light

From the point of view of 17th-century philosophy, Valeriano Magni seems to follow neither empiricism nor rationalism, but rather to independently combine the two approaches. Magni attributes certitude to both sensible data and intellections. However, the credibility of sense perception, in which seeing is emphasized, is founded in Magni's metaphysics of light developed from the medieval Platonism of St. Augustine and St. Bonaventure. The certitude of sight ultimately stems from a reflection derived from the Augustinian introspection.⁶²

The core of Magni's philosophy is grounded in the Augustinian conception of the soul as an image of God. Since God is described as the light of minds, the human soul is of a similar nature and its intellections can be characterized by means of light and illumination. Introspection, or reflection in Magni's terminology, discloses this innermost nature of the human being. In addition, since God the creator of souls and bodies is light, not only intellection but also sense perception somehow has to do with light. This is a way of emphasizing sight among the other senses. Since bodies are characterized by extension and colour, one can grasp their main features only by means of seeing. The certitude of seeing is guaranteed by God the light, for light is an epistemological, ontological, and ultimately also physical principle, as the experiments with a vacuum have proved. With respect to the cognition of external objects, light is not used as a metaphor, but becomes an explanatory principle stemming from Magni's metaphysics.

Vice versa, the analysis of sense perception plays a crucial role in Magni's philosophy. It enables him to describe human cognitive and mental activities by means of the concept of light. From sensitive light via the light of minds the "I" attains self-awareness.

⁶¹ Ibid.: "Ad motus intellectivos spectant Dicere, Judicare, Ratiocinari, Intelligere, amare, odisse, gaudere, tristasri, irasci, velle, nolle, et alii eiusmodi motus seu actus circa objectum, ut est intellectibile."

⁶² Ibid., p. 10: "Sine accurata notitia motuum sensitivorum et intellectivorum nemo Philosophus. Porro harum notitiarum nulla tibi utilior, nulla necessaria magis reflexione tua super tuos motus sensitivos et intellectivos."

ABSTRACT

The Capuchin monk Valeriano Magni tried to create a new Christian, anti-Aristotelian philosophy, which also includes an alternative concept of sense perception. The main source of his approach is St. Augustine's and St. Bonaventure's theory of illumination and the metaphysics of light. Magni emphasizes the seeing is the only sense by means of which one can attain cognition of bodies, i.e., their extension and colour. At the same time, through an analysis of the inner processes of sensation, cognition and intellection, seeing leads to self-awareness. Cognition is intentional in character. The object of sense perception is not an actual external object but an image of it originating from the object, received by the sense organ and grasped by the soul vitalizing the sense organ. Despite that Magni regards the sense data provided by seeing as per se nota, which is made possible by the metaphysics of light. For Magni, light is an epistemological, ontological, and physical principle. His emphasis on seeing is a part of his ontological programme.

Keywords: Valeriano Magni, senses, seeing, light, metaphysics of light, early modern philosophy, 17th-century philosophy