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# Giorgio Valla and the Theory of Perception Between Physiology and Natural Philosophy

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## ABSTRACT

Giorgio Valla's cultural activity as a humanist and physician plays a role of fundamental importance in understanding the developments that philosophy and the history of science went through in the second half of the 15<sup>th</sup> century. His collection of manuscripts and his vast work as a translator of medical treatises are not only a mere material re-appropriation of the philosophical and scientific culture of the Greek world that the Latin West had lost or known only in mediated form, but also the necessary premise for the construction of an organic system of knowledge. This system, inspired by deep Christian convictions, allowed Valla's selection and organization of sources in the encyclopedic experiment of *De expetendis et fugiendis rebus opus* (Venice, 1501). Traces of this process of synthesis and rewriting can also be found in the section of Valla's encyclopedia dedicated to the relationship between internal and external senses, specifically between imagination (namely, Valla's translation of the technical term *φαντασία/φανταστικόν*) and sense-organs.

**Keywords:** Giorgio Valla - *De expetendis et fugiendis rebus opus* - Nemesius of Emesa - Brain - Sensory Perception - Greek-Latin Translation - Medical Humanism

## Introduction

The political project that Bessarion aims at fulfilling through the creation of a real and ideal library, goes far beyond the cardinal's intentions. He remarkably contributed to preserve the identity of Byzantine civilization after the fall of Constantinople<sup>1</sup>. As a matter of fact, the cultural contribution that the Byzantine *émigrés* offered to the Latin West encountered a new way of looking at the ancient, which partly released the classics from the need to be legitimated by the assumptions of faith. Western Humanism perceives all the distance that makes it dramatically far from the ancient culture. That's why it tries to recover the most authentic face of the classical heritage in order to recognize lines of continuity and intellectual filiation from it. The extraordinary diffusion of the teaching of Greek, which enters the curriculum of formation of both intellectuals and ruling class, works in the direction of the re-appropriation of many works that are barely known, lost or even unknown. This kind of re-appropriation aims at recovering the original features of the body of the text. Humanism is particularly careful to catch the philologically contextualized meaning of the word in the processes of transcoding the text from a language to another which means from a century to another and, above all, from a culture to another. The history of medical literature is directly involved in this lively cultural phenomenon, which either reduces or integrates the role of medieval translations from Greek into Arabic and Latin. Moreover, the translations of the humanists enrich the availability of authors and texts previously unattainable, before obscuring them again behind a broader canon of the works of Hippocrates and Galen. However, the discovery of new medical treatises doesn't limit the perimeter of medicine and philosophy of nature to the theoretical space of speculation alone. On the contrary, reflection proceeds in parallel with the learning and the exercise of the profession, which necessarily have an experiential connotation. The path opened by the study of anatomy at the beginning of the 14<sup>th</sup> century through the comparison between Galen's text and the autopsy or anatomical dissection, was consolidated, during the 15<sup>th</sup> century, by the double training, medical and philological, of some humanists. What happened is due to the cultural liveliness of some places, where the teaching of medicine could count on the influence of new book resources, on a direct comparison with the Greek texts and on the philological-linguistic acuity of their readers. Niccolò Leonicensi in Ferrara<sup>2</sup>, Antonio Benedetti in Padua, Giorgio Valla, mainly in Venice, are just some of the leading humanists who represent this renewed and virtuous synergy between medicine and philology destined to leave a persistent mark on the physician training<sup>3</sup>. Let's take as an example the erudite reflections that still in the 18<sup>th</sup> century Giovanni Battista Morgagni and Bernardino Ramazzini support with continuous references to ancient medical literature and more generally to the Greek and Latin authors. In the chapter of *De morbo artificum* dedicated to the occupational diseases of dyers, Ramazzini offers an extensive review of ancient sources relating to the activities of the *fullones*. Among these, the quote from CH *Epid.* VII

81 stands out: the passage accurately describes the degenerative clinical picture of a disease that seems to affect only dyers<sup>4</sup>. On the other hand, Morgagni's writings show a certain attention to issues of medical nomenclature related precisely to the correct transcoding of the specific Greek lexicon. Significant, in this sense, is the request that Giovanni Poleni addresses to the anatomist-pathologist from Forlì to revise the Greek medical lexicon contained in Vitr. I 4. In his erudite answer, Morgagni shows that he knows how to move with a certain ease within ancient medical literature and to manage the facts of nomenclature with a remarkable linguistic sensitivity, as can be seen from the richness of his library.

Among the editions that Giovanni Poleni consulted for his Vitruvian *commentarius*, the third one seems to be missing. It was published by Simone Bevilacqua in Venice in 1497 and it was preceded by Valla's translation of Cleonides' *Harmonicum introductorium*<sup>5</sup>. The volume appears in the catalogue of books owned by Morgagni, together with Valla's *De humani corporis partibus* (Basel 1536) and the famous incunabulum, published by Simone Bevilacqua in Venice in 1498<sup>6</sup>, both of them linked to the collection of manuscripts belonging to Giorgio Valla which witnesses to his activity as a translator of medical texts. It is precisely through the work of Giorgio Valla on a specific theme, namely the theory of perception, that this contribution intends to highlight how the dialogue rediscovered with the ancient medical tradition (sometimes even rather critical, as it happens in the debate around the Plinian text in the aftermath of Niccolò Leonicensino's considerations<sup>7</sup>) through its translation allow us to recover an approach which is both philosophical and physiological. It is in line with a progressive and growing tendency to validate the *auctoritas* of the ancients by resorting to a further collation with two different kinds of books: body and nature. In this sense, few historical-medical themes express as effectively the interaction between physiology and natural philosophy as that of perception. The ancipital nature of the question seems to privilege on one side the psychic-cognitive point of view on the other the inductive approach to the relationship between object of perception and sense-organ. According to a more properly physiological perspective, the question needs to be framed in the long and vexed issue relating to the nature of the soul and its relationship with the body, in which the synchronic and diachronic perspectives happens to be overlapped. Humanism gathers this complicated philosophical, religious and medical heritage by trying to re-tie the threads in the interrupted dialogue between East and West.

### **Valla's sources of physiology of perception**

As regards the theory of perception, Valla relies on the section that a work of long and vast success dedicates to this subject, namely the treatise *De natura hominis* by Nemesius of Emesa<sup>8</sup>. Valla edited a complete translation of the text, which was published posthumously, in 1538, in Lyon, by S. Grifio. This is the only complete translation into Latin after those made by Alfano of Salerno and Burgundio of Pisa between

the 11<sup>th</sup> and 12<sup>th</sup> centuries<sup>9</sup>, if we do not consider that of Johannes Cuno published in Basel in 1512, which substantially reproduces that of Burgundio. The posthumous edition of Valla's *De exp.*, published in 1501, in Venice, by Aldus Manutius, already presents a partial translation of Nemesius' treatise. M. Verhelst has identified in chpts. 1 and 9 of bk. XLVI respectively chpt. 2 (*De anima*) and the first half of chpt. 3 (*De iunctione corporis et animae*) of Nemesius' treatise<sup>10,11</sup>. In general, the scholar reconstructs the entire psychological section of bk. XLVI, recognizing, on the basis of the titles of Valla's chpts, the use of an anonymous treatise *De anima* (Λόγος κεφαλαιώδης), long attributed to both Maximus the Confessor and Gregory Thaumaturgus<sup>12</sup>, and of Nicephorus Blemmides' *De anima*, which Valla can read in a witness datable between the 13<sup>th</sup> and 15<sup>th</sup> centuries, namely the Bodleianus Holkhamensis gr. 71 (175<sup>v</sup>-185), in which the proprietary formula is preserved. The same manuscript (2-70<sup>v</sup>) contains Nicephorus' Epitome on Logic, probably the antigraph from which the Latin translation that opens the incunabulum of 1498 (*Nicephori insignis philosophi de arte disserendi liber*) is taken. Valla's 'cento' is not surprising if we take into account how, in the history of studies of the Λόγος κεφαλαιώδης, the conviction that the treatise depended on Nemesius' *De natura hominis* has been persistent: the precise investigation of F. Celia seems to show that in reality both works depend on the lost Συμμικτὰ Ζητήματα by Porphyry.

However, part of bk. XLVIII, and specifically the section relating to the five senses, also seems to refer to Nemesius' *De natura hominis*, starting with the first passage that deals with imagination. The source used to construct the previous section of chpt. 8, *De anima pariter et corpore*, seems to belong to Gregory of Nyssa's *De opificio hominis*<sup>13</sup> (Tab. 1), in particular chpt. 30, to which manuscript tradition had often attributed Nemesius' *De natura hominis*: it happens, for example, in Vat. Chig. R. IV gr. 13 (10<sup>th</sup>-11<sup>th</sup> centuries: 1-121<sup>v</sup>), probably the closest witness to the one used by Burgundio for his translation.

Tab. 1

Gregory of Nissa, De opificio hominis XXX	G. Valla De exp. XLVIII 8
Ὅσα μὲν οὖν ἐν ἡμῖν τοιαῦτά ἐστιν, ὧν ἄνευ συστήναι τὴν ἀνθρωπίνην ζωὴν οὐκ ἐνδέχεται, ἐν τρισὶ μορίοις κατενοήσαμεν ἐν ἐγκεφάλῳ, καὶ καρδίᾳ, καὶ ἥπατι.	Quae [...] bona sita sunt [...] tribus praesertim in locis insederunt in cerebro, in corde, in iecore [...].
τοῦτου χάριν ἔδει καθάπερ κηροειδῆ τινα κατασχευὴν ὑποτεθῆναι ταῖς κατ' αἰσθησιν ἐνεργείαις.	A summo opifice corpus compositum est ut in caerae modum as sensos recipiendos esse videatur.
Ταῦτη τοίνυν τῆ στερεῶν τῶν ὀστέων φύσει, οἷον στύλοις τισὶν ἀχθοφόροις [...].	[...] ossibus tamquam columnis [...].
Εἰ γὰρ τινα τρωσὶν ἢ ῥῆξιν ὁ περὶ αὐτὸν ὕμην πάθει, εὐθὺς ἐπιχολούθησε τῷ πάθει ὁ θάνατος [...].	Nam si membranula quae cerebrum obnubit, quoquomodo offendatur mors statim languore consequitur [...].

<b>Gregory of Nissa, De opificio hominis XXX</b>	<b>G. Valla De exp. XLVIII 8</b>
[...] ἐν τῷ θερμῷ τὴν ζοιτήην αἰτίαν κατενοήσαμεν [...]. Τῆς δὲ τοιαύτης δυνάμεως οἶον πηγὴν τινα καὶ ἀρχὴν τὴν καρδίαν κατενοήσαμεν [...].	Nam calore quo vivimus [...] vis e corde omnis est caloris, tamquam ex fonte [...].
διὰ τοῦτο οἱ τοῦ αἵματος ὄχητοι, χαθάρπερ ἐκ πηγῆς τινος τοῦ ἥπατος ἀφορμηθέντες τῷ θερμῷ πνεύματι πανταχῆ κατὰ τὸ σῶμα συμπαροδεύουσιν [...].	Id propterea sanguinis rivuli, tamquam de fonte aliquo scaturientes, ex iecore emanantes calidum spiritum per corpus [...].
πόρος νευρώδης (ἀρτηρία δὲ τοῦτο παρὰ τῶν ταῦτα σοφῶν ὀνομάζεται) ἀναδεξάμενος τῆς καρδίας τὸ ἔμπυρον πνεῦμα, φέρει παρὰ τὸ ἥπαρ [...].	Nerveus ergo factus est meatus, quae graeci, ut saepe diximus, arteriam vocant, qui a corde igneum accipientes spiritum ad iecur perfert [...].
μυρίας μὲν δένδρων διαφορὰς, παντοδαπὰς δὲ τῶν ἐκ γῆς φυομένων ιδέας ἐν ἑαυτῷ τρέφων, ὧν καὶ τὸ σχῆμα [...].	[...] et herbarum numerus, forma, colore et caeteris qualitativibus inter se invicem differentes [...].

Chpt. 16 of *De exp.* concludes by announcing the presentation of the part of the soul that does not obey reason, exactly as it happens at the end of chpt. 15 of Nemesius' *De natura hominis* (Tab. 2). However, at this point, the paths of Nemesius and Valla seem to diverge. As a matter of fact, the originality of Valla's operation lies precisely in the selection and in the more or less skillful combination of the sources he translates, as well as in the translation strategies adopted. The identification of the sources, strongly exhorted by Heiberg at the end of the 19<sup>th</sup> century<sup>14</sup>, would make it possible to establish whether a compilation *ratio* guides Valla's operation and what it may be, in order to interpret its meaning within the cultural framework in which it must be placed.

The specific case of Nemesius' choice is significant from several points of view. The work is preserved in two BEU manuscripts, Mut. gr. 18 (15<sup>th</sup> century) and Mut. Gr. 240 (16<sup>th</sup> century). The first one is a direct copy of Harleianus 5685 (H), written by the hand of Andronikos Callistos. The catalogue drawn up by Giovanni Mercati shows under nr. 74 the Mut. Gr. 18, which contains Nemesius' treatise (1-66<sup>v</sup>), + the Mut. gr. 54, which contains Valla's property note. The prefatory letter dated April 20<sup>th</sup> 1538, addressed by Gaudenzio Merula to the dedicatee of the edition, Jacopo Filippo Sacco, refers, without naming G. Valla, to the discovery of the manuscript translation, defining it as unsatisfactory<sup>15</sup>.

Tab. 2

<b>Gregory of Nissa, Περὶ κατασκευῆς ἀνθρώπου 30</b> <b>Nemesius of Emesa, Περὶ φύσεως ἀνθρώπου 6-15</b>	<b>G. Valla, De exp. XLVIII</b>
30. Θεωρία τις ἰατρικωτέρα περὶ τῆς τοῦ σώματος ἡμῶν κατασκευῆς δι' ὀλίγων	8a. <i>De anima pariter et corpore</i>
6. Περὶ τοῦ φανταστικοῦ	8b. [...] De imaginario caeterisque etiamnunc sensibus pauca percurrenda sunt [...].
7. Περὶ ὄψεως	9. <i>De visu</i>

Gregory of Nissa, <i>Περὶ κατασκευῆς ἀνθρώπου</i> 30 Nemesius of Emesa, <i>Περὶ φύσεως ἀνθρώπου</i> 6-15	G. Valla, <i>De exp.</i> XLVIII
8. Περὶ ἀφῆς	10. <i>De tactus sensu</i>
9. Περὶ γεύσεως	11. <i>De gustu</i>
10. Περὶ ἀκοῆς	12. <i>De auditu</i>
11. Περὶ ὀσφρήσεως	13. <i>De olfactu</i>
12. Περὶ τοῦ διανοητικοῦ	14. <i>De imaginario</i>
13. Περὶ τοῦ μνημονευτικοῦ	15. <i>De memoria</i>
14. Περὶ τοῦ ἐνδιαθέτου καὶ προφορικοῦ λόγου	16. <i>De ratiocinatione proloquioque</i>
15. Ἑτέρα διαίρεσις τῆς ψυχῆς	

### Structure

Both the psychology and the aesthesiology of the Valla's encyclopedia seem to be consistent with the intent to insert the ancient sources into a strongly Christianized framework<sup>16</sup>. The authors Valla depends on allow the humanist to lead the discourse in this direction, according to a procedure which is very similar to that described by P. Landucci Ruffo for the section of *De exp.* dedicated to physiology (bks. XX-XXIII). From a synoptic reading of chpt. 8 of bk. XLVIII of *De exp.* and chpt. 30 of Gregory of Nyssa's *De opificio hominis* (Mut. gr. 72, 109-208) it is possible to detect a series of intersections which go from the succession of topics to the identification of a specific interpretation of physiological processes, by including images and quotations (for example Paul. *The Corinthians*. 13, 11). This argues in favor of a free translation from Gregory of Nyssa's text that Valla makes from the beginning of chpt. 8 of *De exp.* to the beginning of the section of chpt. 8 *De imaginario*, from which the humanist returns to translate Nemesius. The psychological 'cento' that translates or reworks Nemesius, Gregory Thaumaturgus, Nikephoros Blemmides, Gregory of Nyssa and Nemesius again, responds to a very precise conceptual design, in which Stoicism seems to play a strategic role in binding ancient philosophy and physiology of the interaction between external and internal senses with providentialism and creationist teleologism. Valla, therefore, gives an organic textual physiognomy to a selection of texts that share not only an ideological macro-objective, but also the specific intention of returning to the body the value that divine creation confers on it. This attenuates the Aristotelian conviction that reduces the body to life in potentiality. Moreover, medicine becomes a Christian science, and Galen, who in *De usu partium* reinterprets the providentialism of the Stoic logos in an anatomical-physiological key, is very suitable to this operation of syncretic inculturation. The contradictions that may emerge from this synthesis, such as those relating to the role of the brain with respect to the perception of external senses or the role of the liver with respect to hematopoietic function, are formally remedied by the unity of linguistic transcoding.

## Translation

Tab. 3

Nem. Nat. hom. 6	Alfano	Burgundio	Valla <sup>17</sup>
Περὶ τοῦ φανταστικοῦ	De phantastica	De imaginativo scilicet de sensu	De imaginario
φανταστικόν	phantastica	imaginativum	<b>imaginarium</b>
φανταστόν	phantaston=IMMAGINABILE	IMAGINABILE	<b>imaginatum</b>
φαντασία	phantasia= <i>imaginatio</i>	<i>imaginatio</i>	<i>imaginatio</i>
φάντασμα	phantasma	phantasma	<b>imago</b>

**Nemesio:** Οἱ δὲ Στωικοὶ τέσσαρα ταῦτά φασι, φαντασίαν φανταστόν φανταστικόν φάντασμα, φαντασίαν μὲν λέγοντες τὸ πάθος τῆς ψυχῆς τὸ ἐνδεικνύμενον ἐν ἑαυτῷ [καὶ τὸ πεποηκὸς φανταστόν].

**Alfano:** *Sed Stoici IIII esse dicunt haec: phantasiam, phantaston, phantasticon, phantasma; phantasiam dicentes passionem animae apparentem in ipsa et quod fecit phantasiam, phantaston.*

**Burgundio:** *Stoici autem quattuor haec esse aiunt: imaginationem, imaginabile, imaginativum, phantasma; imaginationem quidem dicentes passionem animae, quae monstrat in se ipsa et facit imaginabile.*

**Valla, Nat. hom. (1538):** *Sane Stoici haec quattuor esse voluerunt, imaginationem, imaginatum, imaginarium, imaginem, quae Graeci phantasiam, phantaston, phantasticon, phantasma vocant. Imaginationem quidem dicentes animae passionem intra se demonstratam quaeque imaginatum efficiat. [...].*

**Valla, De exp. (1501):** [...], ita nimirum Stoici haec distinxerunt. [...] Ipsius itaque instrumenta [...].

The translation of the lexicon relating to the δύναμις (*virtus*, for Alfano and Burgundio, *vis* for Valla) of the irrational soul<sup>18</sup> offers a significant example for the choice of nomenclature. In the case in question, it is linked to the need to restore the correct meaning of a specific source, namely the Stoics<sup>19</sup>. N. Palmieri<sup>20</sup> points out that in Burgundio's translation, compared to Alfano's one, there is an almost total replacement of the lexical loanword with the Latin vocabulary that exploits the productivity of the *imag-* root, if appropriately suffixed (Tab. 3). In fact, Burgundius' effort is limited to the mere substitution of φανταστικόν with *imaginativum* because Alfano already proposes two of the three translation choices adopted by Burgundio. The adjective *imaginativus* is constructed from the past participle of the verb. Denominal verb *imaginor* (modelled on the verb φαντάζω) with the suffix *-ivus*, which leads the meaning towards a dynamic sense ('tending to'), is perfectly consistent with the strategy adopted by Cicero to translate, in the philosophical field, the Greek adjectives which end with -ικός. The Ciceronian operation determines the creation of a



group of adjectives which, thanks to the suffixation in *-ivus*, shift the passive diathesis of the participial stem towards an active meaning, as it regularly happens in Caelius Aurelianus. Neuter noun proves to be extremely productive in specialized language. In the case of the lexicon of medicine it indicates the medicinal product (*abortivum*), in the philosophical lexicon an agent or faculty. Its use spreads and is consolidated in the Middle Ages. The choice of Burgundio, in fact, is not isolated. The adjective recurs in Richard of England's *Anatomy*<sup>21</sup> (1242-1252):

*Prima cellula (scil. cerebri) anterior, quae dicitur fantastica, id est imaginativa, eo quod ibi anima rerum imagines [...] comprehendit.*

The substantivated neuter noun, understood as *vis imaginandi*, is used by Albert the Great's *Commentary on Job*<sup>22</sup>:

*Imaginativum et sensitivum animalia sunt.*

The lexical loanword *phantasma* remains both in Alfano and Burgundio. *Phantasma*, moreover, often occurs in contexts that have to do with dreams (John Cassian, *Conl.* 12, 7, 4), illness or intoxication (Caelius Aurelianus, *Acut.* 1, 9, 59; *Gyn.* 1, 50), which would not be relevant in itself if it were not for the fact that even in Nemesius' treatise the definition of φάντασμα as "that which is evoked by the empty imagination (φανταστικὸν διάκενον)" implies the immediate reference to those suffering from μανία or μελαγχολία. The complete transition to the Latin vocabulary takes place with Valla's translation, which, moreover, proves to be original in all respects, compared to Alfano's and Burgundio's ones, except for the translation choice of the word φαντασία with *imaginatio* that recurs in all three<sup>23</sup>. The correspondence between the two terms, in fact, has a rather consolidated tradition and is often made explicit in terms of transcoding, as it happens in Calcidius' commentary on *Timaeus*:

*[...] Igitur assensus et appetitus ex se moventur nec tamen sine imaginatione, quam phantasia Graeci vocant. [...]*<sup>24</sup>.

However, the lexical loanword, persistent in the Middle Ages, also endures in humanistic literature. In his commentary on Plato's *Theaetetus*, in fact, Marsilio Ficino refers to the Protagorean doctrine of knowledge as the fruit of sensible perception, according to which what man (the measure of all things) perceives must be considered true. With respect to Socrates' provocative statement that "Φαντασία ἄρα καὶ αἴσθησις ταῦτόν [...]"<sup>25</sup>, Ficino states: "Quales sentiuntur, tales phantasiae, id est, sensui interiori vederi"<sup>26</sup>, meaning by phantasia the fantastic-imaginative activity, which is the core of his theory of knowledge<sup>27,28</sup>. Poliziano's *Panepistemon*, which is akin to Valla's *De exp.*, due to his intention to collect and organize knowledge, continues to use the simple loanword:



*Animae vis triplex, quae vegetat, quae sentit, quae ratione utitur. Prima in [...]. Altera in sensibus quinque, sensu communi, phantasia, memoria. [...].*

Shortly thereafter, the use of the transliterated Greek term recurs within a quotation that calls into question the Nemesius' treatise:

*Nemesius autem sic in lib. de Homine: Vis, inquit, animae triplex est: animalis, vitalis, naturalis. Primi generis mens, phantasia, ratiocinatio, memoria, cogitatio. [...].*

The section of chpt. 5 of Nemesius' treatise closes with a sudden passage to a new subject, namely, the faculties of the soul and their bodily instruments, as the text edited by Sharples and van der Eijk points out. The incipit reads: "Τὸ δὲ σῶμα τῆς ψυχῆς ὄργανον ὑπάρχον ταῖς ψυχικαῖς δυνάμεισι συνδιαρεῖται" that Poliziano's "Vis, inquit, animae triplex est: animalis, vitalis, naturalis" seems to recall. The closure of the section, on the other hand, finds a more precise reference in Poliziano:

Διαιροῦνται δὲ αἱ ψυχικαὶ δυνάμεις εἰς τε τὸ φανταστικὸν καὶ διανοητικὸν καὶ μνημονευτικόν.

However, Poliziano's translation (*phantasia*) loses the dynamic sense of φανταστικόν<sup>29</sup>.

In this regard, it is worth recalling a consideration of *TLG* (1572) on the lemma φαντασία:

*De usu voc. φαντασία copiosa est H. Stephani disputatio ad Sext. Emp. p. 204, 205 ed. Fabr., qui recte monet Ciceronem et Quintilianum, qui visum vel visionem interpretati sint, non satis accurate expressisse vim vocabuli, quum φαντασίαι non appellentur solum quae videre, sed etiam quae audire et omnino quae aliquo nostrorum sensuum percepire nobis visi simus: quamobrem praestare aut Graeco uti phantasia vocabulo, quemadmodum in recentioribus linguis fieri solet, aut, si Latino vocabulo exprimendum sit, imaginationem dicere. [...]*<sup>30</sup>.

Valla is therefore in line with the use of *imaginatio*, which:

1. It is attested in medieval translations.
2. It better expresses the perceptual dimension (*vis vocabuli*) by underlying the transcoded Greek word.
3. It helps to preserve the correspondence with Greek in the construction of the four voices starting from the same root.

In fact, as in Greek, the small family of words linked to the imaginative faculty is built from the vb. φαντάζω, so in his translation Valla homogeneously uses the root *imag-*. The humanist associates the non-suffixed form *imago* to the *nomen rei actae*, which the Greek forms through the neuter suffix -μα, by choosing for φανταστικόν a suffix equivalent to *-ivus* for the dynamic effect it produces. Valla's choice makes it equivalent to the *nomina agentis*, but in a form already attested, unlike *imaginativum*,

in the ancient and late-antique tradition (Apul. Apol. 76, 8; SHA, Pert. 15, 1, 2; Zeno Tract. 2, 25, 1, 7). Even the semantic meaning that implies both the action of the sense organs and the link with cognitive processes, rather than the generic meaning of *fictitious*, is attested.

Chalc. *Comm.* 142:

[...] *hoc est quae praeceptis artificialibus et theorematibus percipiuntur, credulitatem porro sensilibus, scilicet quae oculis auribus ceterisque sensibus comprehenduntur, aestimationem fictis commenticiisque et imaginariis rebus [...].*

Aug. *Trin.* 10, 10, 16:

[...] *Per phantasiam quippe imaginariam cogitat (scil. mens) haec omnia [...].*

However, in Augustine the use of *imaginarius* constitutes a simple alternative to the word *phantasia* and the lexical loanwords *phantasia* and *phantasma*, which the author tends to use anyway: “*imaginarias formas*” (*Trin.* IX 6, 10), “*imaginarium conspectum*” (*Trin.* IX 6:11)<sup>31</sup>. The neuter form of the adjective used as a noun seems to be a novelty. There is a trace of it in the masculine form to indicate “*qui imperatoris imagines ferunt*”<sup>32</sup>. In medieval Latin, in the neuter form, it is used in the sense of *speculum*, which in the sense of reflected image fits well with the Stoic definition of φανταστικόν, namely:

[...] φανταστικόν δὲ τὸν διάκενον ἔλκυσμον ἄνευ φανταστοῦ [...].  
*Imaginarium est inanis sine imaginato distractio* (Valla 1538).

Finally, the choice to translate the verbal adjective φανταστόν with the neuter participle noun of the vb. *imago* (*imaginatum*) seems more graphically and phonetically close to Greek than the predictable form with the suffix *-bilis*, used by Alfano and Burgundio. The Latin suffix, in fact, translates the modal nuance of the possibility in the passive form that the Greek verbal adjective expresses<sup>33</sup>. There are, however, cases in which the suffix can have an active or neutral nuance. And there is no shortage of examples where the forms in *-bilis* and participial forms are interchangeable (*inlaudabilis-inlaudatus, inexorabilis-non exoratus*)<sup>34</sup>. To sum up, the noun form *imaginatum* is attested in the sense of *visio, umbra, simulacrum* in the medieval scientific vocabulary<sup>35</sup>.

## History of Medical Ideas

The *De exp.* and the complete Valla’s translation of Nemesius’ *De natura hominis* align again with the Greek text when the text mentions the instruments (ὄργανα/*instrumenta*) of imagination which are the frontal cavities of the brain, the psychic pneuma within them, the nerves that originate from there, bathed by the psychic pneuma. In

both versions, the ἡ κατασκευὴ τῶν αἰσθητηρίων, that is the sense-organs apparatus, is excluded from the list, even if it is described right after.

The psychic pneuma softens the nerves by moistening them and thus increasing their perceptual abilities. The adjective used by Nemesius, namely διάβροχος, is probably related to the vb. βρέχω, *to flood, to fill with water*, a meaning that the preposition διά reinforces by expressing the meaning of *completely wet*. Valla translates it by using the adjective *humectus*, unlike Alfano and Burgundio who use a periphrasis (Alfano: “rorantes animale spiritum”; Burgundio: “perfused ab animali spiritu”). *Umectus* is found not only in Cato and Varro Reatinus, but also in Aulus Gellius and Caelius Aurelianus (both of them in the field of natural sciences). The first one explains that the name of the Austro in Greek is νότος because it is “nebulosus et umectus” and adds: “νοτίς enim Graece umor nominantur”<sup>36</sup>. In Caelius Aurelianus, on the other hand, anointing with cold lentisk or hispanic oil is suggested to moisten a body which is “inhumectum atque siccum”<sup>37</sup>. Again, it is a precise choice, which is rooted in the tradition of the Latin language (namely, Latin scientific language) and as near as possible, from the semantic point of view, to the word translated from Greek.

## Conclusions

1. Valla’s section on psychology and, more specifically, on esthesiology, deals with a long-standing theme, namely the relationship between soul and body. It is linked to the reflection on the relationship between external and internal senses. The issue opens a long-lasting debate in the medical field which, since the time of Alcmaeon of Croton, has investigated the interaction between perception and σῶνσεις, between sense organs and the brain<sup>38</sup>. Valla’s selection of sources is guided by the intention of constructing an anthropology that reconciles the philosophical and medical tradition in a clear Christian framework, not with the intention of manipulating or misunderstanding the ancient, but to collect their heritage as a dynamic process. By means of a skillful selected anthology of sources, Valla aims at framing the anatomy and physiology of man in a divine providential design.
2. The remarkable activity of transcoding that characterizes Giorgio Valla’s intellectual project can undoubtedly be considered a courageous enterprise. The re-appropriation of Greek culture does not only pass through the material and philological recovery of the text, but also, and in some cases above all, through a correct interpretation of the vocabulary, especially the technical vocabulary. The problem was well known to Poliziano who, as a recent contribution by G. J. Basile<sup>39</sup> reminds us, did not hesitate to ask for the help of the physician of the Medici court, Pier Leoni da Spoleto, to verify the correctness of his translations of Hippocrates and Galen. The idea of producing a Latin equivalent of the Greek text, that in the process of translation loses none of the authentic meaning of the model, responds to the twofold need both for quality of the translation (which oscillates between adherence to a consolidated linguistic tradition

or openness to innovations and neologisms) and cultural mediation. The medical vocabulary, with its specific articulation in physiology, anatomy and *materia medica*, is a testing ground for all the most important translators of Humanism. From the short translation essay examined, it is clear how Giorgio Valla, in deference to his profound reflection on the relationship between “la struttura logico-costitutiva del dato e la dimensione logico-grammaticale della lingua”<sup>40</sup>, without rejecting with contempt the medieval approach to translation, calibrates the construction of the Stoic lexicon of the imagination. He pays specific attention to the isomorphism of semantic structures and tends to construct his new proposals translation on the basis of tradition, with a special focus on lexical issues and namely on medical lexicon<sup>41</sup>. In the end, Valla’s creativity in translation seems to show the overcoming of the biunivocal correspondence that characterizes Middle Ages and early Humanism lists of Greek-Latin words<sup>42</sup>.

3. The providentialism of the Stoic logos is the ground on which to build an interpretation of the body that is both teleological and theological<sup>43,44</sup>. Therefore, it becomes almost natural for Valla to draw from Gregory of Nyssa the three-quarters of chpt. 8, *De anima pariter et corpore*, in which the reference to God as *summus opifex* is constant and deliberately repeated (deliberately repeated of course by Gregory, but also by Valla, since his translation is not a literal, but a synthesis and a reworking). As a consequence, Galen, who is much translated by Valla, is the extreme medical synthesis from which both Gregory<sup>45</sup> and Nemesius draw the idea that perception belongs to the brain through the nerves, if crossed by the psychic pneuma<sup>46</sup>.

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21. See Richard. *Angl. Anat.* I 68.
22. See Albert. *M. Job.* 40, 10.
23. After all, Thomas Aquinas already points out the equivalence between φαντασία and *imaginatio* ("phantasia, sive imaginatio, quae idem sunt", *ST I* 78, 4).
24. See Chalc. *Comm.* 156.
25. See Pl. *Theaet.* 152 c.
26. See Fic. *Op.*, 1274.
27. See Katinis T, *Ficino interprete dei dialoghi platonici contro i sofisti*. Bruniana & Campanelliana 2013;19(1):50.
28. See Aronadio F, *L'Aisthesis e le strategie argumentative di Platone nel Teeteto*. Napoli: Bibliopolis; 2016. pp. 110-111.
29. Interesting is the intermediate exemplification that recalls Aristotle in associating woman with matter (ὑλη).
30. The two terms soon seem to undergo a semantic redefinition that distinguishes them from each other (see Lepschy G, *Fantasia e immaginazione*. *Lettere italiane* 1987;39(1): 24-25).



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32. See Veg. *Mil.* 2, 7.
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35. See Albert. M. *Animal.* 8, 231.
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44. See Sharples RW, Van der Eijk PJ (eds), *Nemesius: On the nature of man*. Liverpool: University Press; 2008. pp. 18-25.
45. Even though Nemesius does not recognize any cognitive activity in the brain (see Verbeke G, Moncho JR (eds), *Némésius d'Émèse De natura hominis*. Traduction de Burgundio de Pise. Leiden: Brill; 1975. p. XV).
46. See Gal. *De plac. Hipp. et Pl.* VIII 6 (= V 6, 89-90 K.); Verbeke G, Moncho JR (eds), *Némésius d'Émèse De natura hominis*. Traduction de Burgundio de Pise. Leiden: Brill; 1975. p. XIX; Verbeke G, *L'évolution de la doctrine du pneuma: Du Stoïcisme à S. Augustin*. New York: Garland; 1987. p. 214.