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Ordering the Soul. Senses and Psychology in 13th Century Encyclopaedias

Ordonner l'âme. Sens et psychologie dans les encyclopédies du XIII^e siècle

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Ordering the Soul. Senses and Psychology in 13th Century Encyclopaedias

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María José Ortúzar Escudero

Introduction¹

- 1 Bartholomew the Englishman (before 1202–1272), Thomas of Cantimpré (1201–1270/2), and Vincent of Beauvais (c. 1184/94–c. 1264) each aimed to gather the existing knowledge of their time and make it available in the form of a single book. This was not an easy task, as they were confronted with an extensive body of thought from numerous traditions. While Platonic and Aristotelian ideas underlie these diverse traditions, the encyclopaedists were confronted with their interpretations, collations, and their further development.
- 2 Perception is not a theme on its own in the encyclopaedias. It is discussed to some extent in connection with the sense organs of humans and animals, and in more detail in connection with the different objects of sensation such as colour and flavour. Its proper place in these encyclopaedias is in the explanation of the soul and its activities.² To understand perception, we have to, then, first comprehend the different conceptions of the soul.
- 3 To my knowledge, the most comprehensive discussion of the soul and its operation in these encyclopaedias was provided in 1928 by Ludwig Lieser, who analysed the books dedicated to the soul in Vincent's *Speculum naturale* (LIESER, 1928). Monique Paulmier-FoucART, for her part, relates specifically the transformation of the arrangement of the five outer senses in two different composition stages of the *Speculum* with two views of the soul: a medical and a philosophical (PAULMIER-FOUCART, 2000: 278–280). In her study of imagination and fantasy in various encyclopaedias, Christel Meier-Staubach similarly

distinguishes between a physiological-medical and a functional-philosophical view of the potencies of the soul. The physiological-medical tradition, with its doctrine of the three cells, is found, for instance, in the encyclopaedias of Bartholomew the Englishman and of Thomas of Cantimpré (MEIER, 2003: 163–164; 167). The functional-philosophical account of the soul faculties (or more precisely, of the inner senses) is exemplified by Vincent's treatment in his *Speculum* (MEIER, 2003: 168–173; see also VINGE, 1975: 70). In another contribution, Christel Meier-Staubach analyses both of these traditions in their relation to order principles of the encyclopaedias, especially in the *Speculum* (MEIER, 2002: 179–184). Recently, Iolanda Ventura has compared the arguments attributed to the « philosophers » (Aristotle) and to the « physicians » (VENTURA, 2012: 105; 131–133). Vincent, Thomas and Bartholomew seem to recognise two different accounts of the soul and its powers—as she indicates when analysing the use of Aristotle primarily in the passages dedicated to the lungs and to the heart in *De proprietatibus* (VENTURA, 2012: 62–63; 104–105). On discussing the relationship between soul and body, Bernard Ribémont classifies in contrast the sources of Bartholomew and Thomas as « theological » and « medical » (RIBÉMONT, 1995: 159–160). In his analysis, Ribémont examines above all the book on the soul in *De proprietatibus* (RIBÉMONT, 1995: 158–176), which proves to be rather complex: In accordance with the text itself, he considers the soul in its relation to the body, in relation to its ends, and in relation to its works (RIBÉMONT, 1995: 166). Later, he proposes a somewhat altered schema of Bartholomew's discussion about the powers of the soul, basing it on the division in vegetative (« growing »), sensitive and rational (RIBÉMONT, 1995: 167). In the introduction to his edition of the book on the soul, Raymond J. Long distinguishes between four different accounts of the soul potencies (according to its end, to its act, to its body, and to how the soul acts in the body) (LONG, 2007)³. Michael C. Seymour has delivered an outline of the same book (drawing on the English version of John of Trevisa), which follows roughly the plan of Aristotle's *De anima*, and a thorough survey of its sources (SEYMOUR, 1992: 49–53).

- 4 In this paper, I too will be concerned with the powers attributed to the soul, the divisions of the soul, and the process of perception. As mentioned above, there are several studies on the soul and its powers in the encyclopaedias, but none of them considers thoroughly and systematically the (many) powers of the soul and the different accounts of them in the three encyclopaedias⁴. There are good reasons to adopt the distinction between philosophers and physicians—the strongest of them being that the encyclopaedists employ it, too. In order to attain a comprehensive plan and to illustrate the interweaving between the different traditions, I will be though concerned with four different « distinctions » of the soul and with two different accounts of the function of the inner soul potencies in their relationship to knowledge. These divisions and accounts will be shown in the three encyclopaedias, so as to expose clearly their similarities and differences. In addition, to provide an overview of these accounts and their philosophical underpinnings, each section is introduced with a discussion of the encyclopaedists' sources already identified by other researchers—significantly, the ones mentioned for the *Speculum naturale* by the SourcEncyMe project⁵. The placement of the « inner senses » in books 25 (and also 27) and the description of their operation will be considered at greater length, giving a more detailed insight into the treatment of the various sources. Furthermore, I will consider the task of the intellect(s) in the process of abstraction—an important contribution of

the Peripatetic philosophy dealt with by Lieser. The discussion follows closely and, in the case of the *Speculum naturale*, rather extensively the arguments presented in the encyclopaedias. The resulting arrangement is inevitably more schematic than the one displayed in the encyclopaedias. Nonetheless, it presents an initial exploration on the selection and arrangement of sources. Other significant subjects in the encyclopaedias, such as the ontological status of the soul, the (im)materiality of the soul, and the role of the « rational soul » in knowledge of good and of God, will be merely touched upon.

Kinds and Divisions of the Soul

- 5 Bartholomew and Thomas each dedicate a book to the soul in their compendia (see Appendices 1 and 2). In the revised, full-fledged *Speculum naturale*, one of the original three books of his *Speculum maius*, Vincent of Beauvais expounds the different views of the soul in five books (see Appendix 3). Concurring with most traditions, these encyclopaedists conceived of the soul as a singular substance, which possesses different powers or virtues (the terms *potentia* and *virtus* are generally used synonymously). The traditional accounts distinguish between different powers operating within the soul, which also have manifold functions⁶. Since the encyclopaedists are aware of these dissimilarities, they try to order these various models of the soul with respect to different points of view (Bartholomew and Vincent). The use of the same terms to define diverse potencies, the similar function that they assume in the various schemes, and also the grouping of the same potencies along different schemes, cause some confusion about the models of the soul.

The Platonic distinction: the concupiscible, irascible, and rational souls

- 6 The notion of three parts of the soul, also referred to as the concupiscible, irascible, and rational souls, is of Platonic origin⁷. It passed into the Middle Ages through the writings of Augustine (354–430), Nemesius of Emesa (fl. c. 390), and John of Damascus (c. 650–754), among others; and it was complemented through the reception of Arabic texts by the end of the 12th century (BRUNGS, 2009: 31–32). The main direct source for Bartholomew, Thomas and Vincent for expounding the Platonic distinction was *De spiritu et anima*⁸. This treatise, sometimes quoted as *De anima et spiritu*, was written by a Cistercian monk, and commonly attributed to Augustine⁹; Vincent thought its author to be Hugh of St. Victor. The use of the same source explains why some of the content and wording are quite similar in the three encyclopaedias. This writing is also a fundamental source for the influential *Summa de anima* of John of La Rochelle (written about 1235/6)¹⁰, to which Vincent refers extensively.
- 7 If the powers of the soul are considered according to its ends, then—as Bartholomew states—the soul can be divided into rational, concupiscible, and irascible powers. The rational power aims at truth since it is the faculty concerned with knowledge. The concupiscible power aims at the good, since it has the will and the desire of what is good. The irascible drives at what is stable and eternal; it is responsible for the flight from the opposite, from evil. These powers could also be regarded as cognitive or apprehensive (of the truth), as affective (towards the good), and as motive (away from evil). The senses originate in the rational or apprehensive power, and affection and

motion in the concupiscible and irascible soul respectively. There are four affections: joy, hope, fear and pain. Joy and hope are produced by the concupiscible soul, fear and pain by the irascible (BARTHOLOMAEUS ANGLICUS, *DPR*, 3.6.32-52)¹¹.

- 8 Thomas of Cantimpré adds that the rational soul is able to know what is above it (i.e., God), close to it (i.e., the angels and itself), and below it (i.e., all the things that are kept by the circle of heaven). In a passage very similar to Bartholomew's, Thomas remarks that affections arise from the concupiscible and irascible powers, and that the rational power is responsible for all the senses of the soul and all the other affections. Thomas broadens the account of the concupiscible and irascible powers to explain how the affections, which these powers generate, are also like the cause and common matter of every vice and virtue (THOMAS CANTIMPRATENSIS, *LDNR*, 2.4). Some chapters later, he carries on the discussion of these three powers of the soul, pointing out that the soul is not to be understood as divided, but instead as simple and one (*LDNR*, 2.9).
- 9 Vincent of Beauvais revisits the « Platonic » distinction as well, scattering its content in several books. In the first book on the soul (23), he connects desire, fear and discernment with the three Platonic powers of the soul (though he uses the term *cupiditas* when dealing with the concupiscible power) (VINCENTIUS BELVACENTIS, *SN*, 23.14). In the book on the « sensitive soul » (25), he offers a description of the rational power, to some extent with the same words as Thomas in *De natura rerum* (*SN*, 25.1)¹². Like Thomas, he draws on the account of the *De spiritu et anima* about the origin of vices and virtues in the concupiscible and irascible powers. Since virtue is the state of a well-ordered mind, the affections of the soul are also to be regulated. Otherwise, it falls easily on vices (*SN*, 25.1). Neoplatonic considerations are found also in the book about the « rational soul » (27). Vincent explains that human beings are composed of two substances: the soul with its reason and the body with its senses. The senses are not able to move the flesh without the soul; the soul instead can move its reason without the flesh. This passage repeats succinctly the division of the soul into rational, concupiscible and irascible, and with their relationship to the capacity for knowledge and affections (*SN*, 27.1; cf. 25.1). In the next chapter, Vincent affirms that the ability to desire things that are agreeable and useful and to flee from things that are hurtful corresponds to a classification of the animal potency and the sensitive powers regarding the conservation of the body: The soul has to judge what can be harmful and what can be useful, before it comes to the actual desire or flight. This is accomplished along a path from the senses to the intelligible (or, through the sensitive soul, from experience to science) (*SN*, 27.2)¹³.

The Aristotelian distinction: anima vegetabilis, sensibilis, rationalis

- 10 According Aristotle, « to be alive is to possess a self-originating tendency toward an end ». The end of the lowest level, the nutritive soul, is to generate another being like itself; and its primary function is nutrition. Like plants, animals nourish and reproduce, but, unlike plants, they also sense, move, and desire. Human beings, in addition, are endowed with reason, by means of which they can order their desires (PETERS - MACE, 2006: 118–119; see also CORCILIUS, 2015: 32–49). This threefold distinction, reworked to a certain extent in the Avicennian account of the soul and its powers, is easy to appreciate in Albert the Great's *De homine* (written about 1242–3)¹⁴, and also plays a role

in the *Summa de anima* of John of La Rochelle¹⁵. Both works were important sources for Vincent of Beauvais.

- 11 The Aristotelian notion is at the base of Bartholomew's account of the three potencies of the soul with regard to its acts: vegetative in plants and roots, sensitive in animals, and rational in humans (DPR, 3.7.2-7). The vegetative potency strives after being, the sensitive after being in the sense of good and the rational after being in the sense of the best. Consequently, the rational potency does not rest until it unites with God (DPR, 3.13.75-82). Bartholomew, resorting to the « treatise of the soul » in the *Liber introductorius* of Michael Scot (c. 1175-1237(?))¹⁶, explains that the vegetative potency also has powers of its own: the generative power (responsible for the multiplication of the species), the nutritive power (responsible for individual conservation), and the augmentative power (responsible for the perfection of the subject). The appetitive, digestive, retentive and expulsive virtues serve the nutritive soul, given that they are responsible for nutrition in general (DPR, 3.8.2-14).
- 12 Thomas touches upon this theme when referring to the five inner senses (see below). He states that some bodies live, such as trees, herbs and everything which grows from earth, while some bodies sense and live, including all brute animals that have sensation but no imagination, and other bodies—namely, those endowed with the rational soul—have sense, imagination and memory (LDNR, 2.15).
- 13 The « Aristotelian » distinction plays a major role in Vincent's encyclopaedia: the order of four of the books on the soul conforms roughly with the division into the vegetative, sensitive, and rational souls (see Appendix 3). This distinction seems to be fundamental for explaining the being of the soul and its relationship with the body. A clear definition of these powers can be found in a brief passage, which affirms that the « philosophers » single out the powers of the soul according to its operation, depending on whether it concords with or differs from the operation of the soul of plants and brute animals. The result of this comparison is the division into vegetative, sensitive and rational powers (SN, 27.2). Vincent draws on this distinction at length when discussing the substance of the soul in book 23; it appears initially in the exposition about the different views on the origin and development of the soul (SN, 23.11). Later on, he takes up Aristotle's idea of the generation of the three powers of the soul. At first the human body is animated in the maternal womb, then appears the faculty of sense, and finally, the intellect. These three potencies are not to be conceived of as three distinct incorporeal substances, but instead as one (SN, 23.14). An « actor » passage¹⁷ (in fact a quotation of La Rochelle) examines the vegetative, sensitive and rational powers in greater detail in the next chapter, in which he explains why some authors have considered the three powers as three souls. He clarifies that, although there are three different incorporeal substances, there is only one single soul. The vegetative and sensitive substances exist in the human beings as material dispositions for the purposes of the rational soul (SN, 23.15). There is another important difference to consider, namely, that the sensitive substance, and not the rational one, is corruptible. The sensitive soul is not corruptible, however, with regard to its essence and potency. It can be corrupted only with regard to its act, when the soul is separated from the body (SN, 23.15). The sensitive power in human beings is also different from the same power in brute animals. In animals, the soul, as a substantial and incorporeal form, is not distinguishable from the body, neither in potency nor in act. Because humans have a

rational soul, the sensitive power can be differentiated from the rational with respect to its act, not to its potency (SN, 23.16).

- 14 Some of these subjects are iterated later, when discussing the medium for the union between the human body and soul in another « actor » passage (also a long quotation from La Rochelle). The sensitive, like the rational soul, is simple and incorporeal—and, like the body, corruptible. Its simplicity is shown by the fact that the soul can draw the forms (*species*) away from matter, which are the basis for knowledge. To be cognoscitive, the sensitive soul has to correspond with the body as well as with the rational soul. To make possible the union between body and soul, there is need for a first form that joins matter without a medium, and a last form that joins matter through a medium. At every stage, the lower soul is considered a sort of « material disposition » for the superior soul; and, at the same time, the superior soul is considered the perfection of the lower soul. Thus, the vegetative soul is the medium through which the sensitive soul joins matter. The sensitive soul is itself a medium for others joining together: It needs the vegetative power to join its subject, and it itself is the final perfection in brute animals. In human beings, however, it is merely the medium for the constitution of the intelligible power or rational soul (SN, 23.46).
- 15 Vincent examines in greater detail still the medium character of the sensitive and the vegetative souls in the next chapter, a « philosopher » (La Rochelle) quotation¹⁸. An intermediate is necessary since there is an important disparity between the rational soul and the body. The rational soul is simple, not contrary (for it is not composed of opposites), incorporeal, has the ability to know and does not depend for its being on something exterior to it. The body, by contrast, is by nature composed, contrary (for it is composed of opposites), corporeal, passive, and dependent on the soul. For this part of the soul, there are two intermediaries: the vegetative and the sensitive souls. Both are simple, not contrary, incorporeal, and dependent, but they differ in their ability to know and in the way they are united with matter. The sensitive soul needs the vegetative, through which it can be united to matter and operate. It also needs the rational soul, which guides it (in human beings). There are, furthermore, two bodily intermediaries, by means of which the union is accomplished. The first intermediary is the spirit, which is of the same nature as the heavenly bodies, and acts as a vehicle for the various powers of the soul, namely, the natural, vital, and animal. The spirit is conceived of as simple, not contrary, corporeal, passive, and dependent. The second intermediary on the part of the body is in the nature of the elements, and concerns uniformity and moderation, which is in the blood. This is simple, contrary, corporeal, passive and dependent (SN, 23.47)¹⁹. Thus, the rational soul and the body are connected by the sensitive soul, the vegetative soul, the spirit, and the nature of the elements (for the spirit and the « natural, vital, and animal powers », see the following section).
- 16 In book 24, Vincent grounds the division of vegetative, sensitive, and rational souls on their respective manners of desire (*appetitus*). In reference to Avicenna, he explains that the simple substance fulfils its desire externally, for it needs something external to itself in order to be complete. The vegetative life depends on that essentially. The sensitive substance also requires something external to itself, for it depends on its body: its cognitive capacity depends on the appearance or similitude (*species*) of things. Rational life, by contrast, does not depend essentially on something external. However, it does require the appearance or the similitude of a thing to enable cognition (SN, 24.41). Quoting the 13th century anonymous treatise *De anima et potentiis eius*, Vincent

also affirms that the sensitive soul is distinct from the rational soul because of its inability to conceive spiritual things. Moreover, similar to the vegetative soul, the sensitive soul cannot be separated (from the body). He introduces here the distinction between a rational and an intellectual power, whereby the latter is detached from thinking with forms (SN, 24.62).

- 17 The difference between the acts of the tripartite soul is also explained resorting to *The fountain of life* (*Fons vitae*) by the Jewish philosopher Salomon Ibn Gabirol (latinised as Avencebrol or Avicbron, c. 1021–1058). The action of the vegetative soul is to move the vegetative parts from the centre to the exterior parts (to vivify) and to reproduce a thing from a similar thing (to generate). The action of the sensitive soul is to sense the forms of the heavy objects in time, and to move through space. The action of the rational soul is to sense the subtle forms of the things perceived and to be moved by them, but not in time or space. The action of intelligence is the apprehension of all the forms of the things perceived without time or inquiry, without any trouble or cause—merely to apprehend their essence (SN, 24.62). Although they have distinct operations, the three parts of the soul act and originate simultaneously, as Albert the Great states in the *Summa De homine* (SN, 24.62). Two chapters later, Vincent resorts to Avicenna and Albert to deepen the notion of the vegetative power. Like Bartholomew the Englishman, he draws on the nutritive, augmentative and generative virtues of the vegetative power. These virtues can also be arranged with respect to either the individual or the species. The nutritive and augmentative virtues serve the individual, since the first concerns the renewal of individual matter and the second leads to the individual's perfection. The generative virtue strives for the conservation of the form and of the species (SN, 24.64, quoting Albert the Great).
- 18 This Aristotelian notion of a tripartite soul is also at the base of the idea that human beings are situated between brute animals and angels. In this light, Vincent remarks that animals have merely a sensitive soul and angels a purely rational soul. Only human beings have a substantive soul, which continues to live once it has left its body (SN, 23.26, quoting Alexander of Halès).

***The « medical » distinction: vis naturalis, vis vitalis, vis animalis*²⁰**

- 19 The natural, vital and animal powers are another answer to the question concerning how the soul operates in the body. These powers are related with the “pneuma” theory, whose origins hark back to Greek natural philosophy. Crucial for the further development of this theory, was the “pneumatic physiology” of Galen. Galen distinguished between a vital pneuma operating in the heart and a psychic pneuma operating in the brain. The psychic pneuma, which moves from the brain ventricles through the nerves to the rest of the body, provides sensation and voluntary motion (ROCCA, 2012: 636–637). The localisation of the faculties of thought, judgement, and memory in the brain ventricles is usually attributed to Posidonius, a 4th century Byzantine physician (SUDHOFF, 1913: 11). Versions of ventricular theories can be found in Augustine's (†430) *De Genesi ad litteram* (GREEN, 2003: 149) and in the treatise *De natura hominis* by Nemesius of Emesa (written 390–400) (THEISS, 1997: 41–42; GREEN, 2003: 139; DOBLER, 2000: 30–31). Nemesius was an important source for the Syrian theological writer Yanah ibn Mansur ibn Sarjum (latinised as John of Damascus, †749) (LIESER, 1928: 147–148). In the late ninth and tenth centuries, ventricular theories of the inner

faculties are adopted and further developed by the Nestorian Christian Hunayn ibn Ishaq al-Ibadi (latinised as “Johannitius,” †873/77) and Qusta ibn Luqa (known as Costa ben Luca, †923) and the Persian physicians Abū Bakr Muḥammad ibn Zakaryā ar-Rāzī (better known as Razi or Razhes, †925) and Ali ibn al-Abbas al-Majusi (latinised as Haly Abbas or Ali Abbas) (†994/95) (cf. ROCCA, 2012: 647-648; HARVEY, 1975: 10-11; 13-21). These texts appear to connect the Aristotelian distinction of three souls or parts of the soul (nutritive or vegetative, sensitive or animal and rational) with the function of three kinds of “spirits” (ROCCA, 2012: 651). Thus, Haly Abbas maintains that the nutritive powers of the soul act through the natural spirit, which has its seat in the liver and the veins. It governs generation, nutrition, and growth. The vital spirit is located in the heart, from where it disperses through the arteries to animate the body. Sensation takes place through the sense organs and the nerves coming to the front of the brain. The spinal cord and the nerves branching from it are responsible for movement. The ruling power comprises imagination, cognition, and memory. These faculties are located respectively in the two front ventricles, the middle ventricle, and the hindmost ventricle of the brain (HARVEY, 1975: 17).

- 20 These elaborations of the pneuma-ventricular theory came to be known to the “Latin West”. Of considerable influence were the adapted translations by Constantine the African (†1087) of the work of Johannitius known as *Isagoge* and of the work of Haly Abbas called the *Pantegni*. The thoughts of these medical writings were further transmitted through 12th century authors such as William of St. Thierry, Adelard of Bath, William of Conches, Bernardus Silvestris, and even Hugh of St. Victor (MEIER, 2003: 162-163; JORDAN, 1990: 47; BRUYN, 1982: 67-68; JACQUART, 1986: 209; JACQUART, 2011). The contemporary Pseudo-Augustinian treatise *De spiritu et anima* refers to the *vis naturalis*, *vis vitalis*, *vis animalis* in connexion with an active principle in the organisms, and to the doctrine of the brain chambers (NORPOTH, 1971: 109-114). Both ideas have an important place in diverse encyclopaedias up to the middle of the 13th century (cf. MEIER, 2002: 182-183), including the encyclopaedias analysed here.
- 21 According to Bartholomew the Englishman, who was largely inspired on this subject by Michael Scot’s « treatise on the soul »²¹, there is a « sensitive motive virtue » (*virtus sensibilis motiva*), which is divided into natural, vital, and animal powers. The natural power moves the four humours in the animal body through the veins. It is located in the liver. The vital virtue, which has its seat in the heart where the arteries originate, moves the spirit from the heart through the arteries. The animal virtue is situated in the ventricles of the brain, where all the nerves begin. It moves all the members. This power is called operative when it moves the hands, and progressive when it extends to the feet, enabling the body to walk (DPR, 3.12.2-23). A shorter description of these powers ascribes the actions of the vegetative soul (to generate, nourish and grow) to the natural power (DPR, 3.14.3-16). The function of the vital virtue is to animate the body (DPR, 3.15.2-5). The animal virtue is threefold: ordinative, sensitive and motive. The ordinative power orders the faculties of fantasy or imagination in the first ventricle of the brain, the faculties of judgement (*estimatio*) and reason in the middle ventricle, and the faculty of memory and its actions in the last ventricle. In this way, the imagination transmits what it has formed and imagined to the judgement of reason. Reason judges and defines what has been transmitted by the imagination, and then transfers it to memory. Memory receives what has been put « in the intellect » (reason), keeps it and guards it until it is needed for action (DPR, 3.16.2-15). The

sensitive power refers to the senses: The animal spirit expands from the anterior ventricle of the brain, through delicate nerves, until it forms vision, smell or the other senses—depending on where the spirit is directed (DPR, 3.16.16-21). The motive power is not further explained.

- 22 Following a description of the five outer senses, Bartholomew deepens his account about the spirit. Resorting to Costa ben Luca's *De differentia animae et spiritus*, he explains that the spirit is a certain subtle body, generated by the force of heat. Through the veins and arteries, the spirit gives breath, life and pulse to animals; through the nerves and muscles, it brings about voluntary movement (DPR, 3.22.9-16). Further material on the origin of this spirit is offered by « the physicians » (Constantine the African): When a great ebullition takes place in the liver, caused by the heat that acts in the veins, a certain fume is released. It is thereby made purer and clearer, and transformed into a pure and spiritual substance: the natural spirit, which refines the blood and drives and moves the members. This spirit is then directed to the heart. As a result of its movements, the spirit is further purified, adopts an even purer nature, transforming into the vital spirit. It spreads from the heart through the arteries to all the members of the body, regulating and restraining them. Some arteries originate from the heart, one of which divides into three branches. The middle branch reaches the brain, enabling the spirit to enter the ventricles, where it is further refined and purified and thus transformed into the animal spirit (DPR, 3.22.16-46). Here the doctrine of the three brain cells is reiterated: The animal spirit, generated in the anterior chamber, spreads through the sense organs. A part that remains in these ventricles brings about the common sense and the imaginative virtue (imagination) in the frontal ventricles, the intellect (equated with reason?) in the middle ventricle or logistic cell, and the impressions of these two cells are deposited in the « memory cell » (DPR, 3.22.47-55). After recapitulating the activity of the spirit, Bartholomew clarifies, quoting the Pseudo-Augustinian treatise *De spiritu et anima*, that the spirit is an instrument of the soul, but not the soul itself (*anima*) nor the rational mind (*animus*) (DPR, 3.22.65-68). The spirit makes it possible for the soul to unite with the body; if the spirit is disturbed, the harmony between soul and body is severed (DPR, 3.22.70-75). The book on the soul closes with an examination of the effects of the spirit on the pulse (DPR, 3.23-24). The activity of the soul along the division into vital, natural, and animal, and the existence of three chambers in the brain is revised again in the fifth book of *De proprietatibus*, which is devoted to anatomy (DPR, 5.1; 5.3; cf. also MEIER, 2003: 162–163).
- 23 The doctrine of the spirit is also found at the end of Thomas of Cantimpré's book on the soul, based on *De spiritu et anima* of Pseudo Alcher of Clairvaux / Pseudo-Augustine (LDNR, 2). Concurring with the doctrine of the spirit, Thomas explains how the « igneous power » (*vis ignea*) ascends from the heart to the brain, where it is purified and cleansed. From the brain it advances and reaches the exterior through the eyes, ears, nose and the other instruments of the senses. Afterwards, this igneous power moves from the forebrain to the hindbrain, from where it descends through the neck and the spinal cord. In this way it spreads through the body (LDNR, 2.15, still based on *De spiritu et anima*). This power builds also the imagination within the « imagining chamber » (*cella phantastica*). The imagination moves from the forebrain to the midbrain, where it joins the substance of the rational soul (in human beings). In brute animals, the imagination does not transcend the imagining chamber (LDNR, 2.15). In another passage borrowed from the same Pseudo-Augustinian work, Thomas clarifies that the spirit is an inferior power of the soul. It is located in the mind, where the

similitudes of the corporeal things are represented. Through the spirit we can know the face of someone in memory, because memory has a similar image (of this face). We recur to this image when we think about it with our eyes closed (*LDNR*, 2.7). Thomas then turns to a description of memory that is based on an Augustinian account of perception²².

- 24 Vincent touches briefly upon this distinction in the first book on the soul (23), while discussing the differences and functions of the vegetative, animal, and rational souls. The rational soul is equated with the celestial bodies, as it is simple and incorruptible. There are, nevertheless, bodies that are simple but corruptible, such as the elements. For this reason, in order for the rational soul to be unified with the body, there has to be agreement between the sensitive soul, the vegetative soul and the spirit (*SN*, 23.46). This spirit is divided into three: animal (located in the brain), vital (located in the heart), and natural (located in the liver). These three spirits are of the same nature as the heavenly bodies; therefore, they are in constant motion. Their main members, namely, the brain, the heart, and the liver, are also in constant motion (*SN*, 23.46). In an « actor » passage, Vincent discusses later the different views on the three ventricles doctrine. According to his reading of Johannitius, from the ordering and composing power arises fantasy in the forehead, thinking in the brain, and memory in the hindbrain. He summarises then the argument of Qusta ibn Luqa's *De differentia animae et spiritus*, according to which many thinkers consider the rational soul to be corporeal, and briefly discusses the seat of reason in the middle chamber of the head. With reference to Avicenna and Al-Ghazzali (latinised as Algazel, 1158–1111), he discusses different illnesses that obstruct accidentally the operation of the soul in the three chambers of the brain. These chambers correspond to the faculties of fantasy, reason, and memory (*SN*, 23.39).
- 25 Vincent takes up again this subject in more than two thirds of book 24 (chapters 3–60). Referring to *De spiritu et anima*, he states that, through these powers the soul is joined to the body, enabling it to live. The natural power is common to all animals. It produces blood and the humours in the liver, which are transmitted through the veins to all the members. It can be divided into appetitive (desiring what it is necessary for the body), retentive (conserving what has been consumed, until digestion is carried out), expulsive (expelling what is harmful or superfluous), and distributive (distributing the good humours of the aliments to all the members)²³. The vital power resides in the heart. It gives life and vigour to the whole body, as it regulates the heat of the heart through inhalation and exhalation. As a result of the pure air, it sends purified blood throughout the whole body by means of the arteries, also called beating veins. The animal power resides in the brain, from where it enables the five senses to thrive. It also orders speech and the movement of the limbs. The brain has three ventricles: The senses arise from the anterior ventricle, movement from the posterior, and reason from the middle. These powers are bodily as well as spiritual, since they come into being in the body by means of the soul (*SN*, 24.3)²⁴.
- 26 Vincent turns to Haly Abbas for an account of the natural power, responsible for the emergence and maintenance of the individual. The natural power is here divided into three further powers: generative, nutritive, and nourishing. The generative power, through the transformative and the informative powers, originates and forms the foetus. The nutritive virtue helps the generative virtue, since it is responsible for the growth of the foetus. Its action ends at the end of youth, that is, at 35 years. The

nourishing virtue assists the other two by assimilating the food that allows the transformation and growth of the foetus and, afterwards, of the individual. It is active until the death of the individual (SN, 24.4; cf. 24.5-10). A further quotation from Haly Abbas introduces the section on the vital power, responsible for the life itself and for its source and principle, the heart life begins from the heart and is conveyed through the arteries to all the members of the body (SN, 24.11). This leads Vincent to a long section on how to understand life and living beings (SN, 24.12-51), all of which is based on the *Summa halensis*. While this work is attributed to Alexander of Halès (c. 1185-1245), it is in fact a collaborative work²⁵. Four more chapters from this *Summa* discuss the bodily functions of the vital power such as respiration, preservation of natural heat and the causes for its corruption, and the division of vital power in active and passive (SN, 24.52-55). Vincent resorts one more time to Alexander to explicate the animal power. This power comprises three aspects: the mind (*mens*), the sensitive (perceptive) and the motive powers. The mind comprises, for its part, also three powers: fantasy, the faculty of thought (*cogitatio*), and memory. They are located respectively in the forebrain (in two ventricles), midbrain, and hindbrain. The function of fantasy is to form and imagine things, and then to pass them on to the faculty of thought. This faculty considers imagined things with regard, for instance, to their disposition and order. If anything about these things should be retained, then it is preserved by memory. Through the nerves, the brain operates the faculties of sense and motion (SN, 24.56).

- 27 Vincent also finds the distinction between the « natural, spiritual and animal » powers in the *Dragmaticon philosophiae* by William of Conches. In a rather long quotation, he examines the appetitive, retentive, digestive, and expulsive virtues attributed to the natural animal powers (SN, 24.57; cf. also 24.58). Another quotation from the same work presents the notion of a moist fume that ascends from the liver to the heart. Afterwards, it passes through the finest net near the brain, where it is transformed in the spirit, the proper instrument of the animal soul. This spirit is not to be identified with the soul. It is merely an instrument of the soul. There are also three chambers in the anterior, in the middle, and in the posterior part of the brain. In the first chamber, called fantastic, the soul « sees and comprehends ». In the middle one, called logistic or rational, the soul distinguishes in itself the living objects, the forms, and the colours that have been brought by the fantastic power. The third chamber is called « memorative » since that is where memory operates. The soul attracts (the exterior forms) through the first chamber, distinguishes them in the middle chamber, and then transmits them to memory through an orifice that exists between the middle and the posterior chambers (SN, 24.59).
- 28 A collection of citations about memory in book 27 makes also reference to Constantine the African and the three cells doctrine. The mind has three operations: fantasy, reason, and memory. They are located in the brain, whose parts and arrangement are discussed in some detail. The two front ventricles dry up this area and make room in the brain for the animal spirit, from where the senses and fantasy originate. This spirit passes to the place in the middle of the brain. From there the animal spirit, now made more pure and clear than the spirit that came to the front of the brain, transits to build reason and intellect. Around the middle ventricle there is a part of the brain matter called *pineae*, which is similar to a worm. This part of the brain regulates an opening, through which the animal spirit transits from the forebrain to the hindbrain. It opens

only to remember things that have been forgotten, or to retain what we do not want to forget (SN, 27.12).

- 29 When considering the medical division in all these records, we are principally confronted with the notion of spirit as a critical and crucial explanatory concept for the activity of the soul in the body. This notion also plays a major role on the explanation of perception. The spirit is considered to have a substance, though a substance that is airy and purified. Its activity is thus material. According to this view, the powers of the soul in the body are ultimately physical and, because of their physicality, able to act upon the body.

Avicenna's faculty psychology: The motive powers (concupiscible or irascible powers)

- 30 The philosophical writings of the Persian polymath Ibn Sina (latinised as Avicenna, 980–1037), reached the Latin West even before the complete works of Aristotle were known. Besides *The Canon of Medicine*, his other most popular book was the philosophical encyclopaedia *The Book of Healing* (the *Shifâ*). This book originally comprised four parts: logic, philosophy of nature or physics, mathematics, and first philosophy or metaphysics. The *Liber sextus de naturalibus sive de anima*, the sixth book of the physics, was one of the three books of this writing that were known in the Latin West (DE LIBERA, 2005: 22–23). *De anima* exposes a widely held account of the soul and its powers. According to this theory, which synthesises Aristotelian and Neoplatonic aspects, the faculties of the sensitive soul are divided into motive and apprehensive powers. The motive power has two functions: to command behaviour and to effect movements. The latter function operates by means of the nervous system and the muscles (KNUUTTILA, 2004: 219–220). The commanding motive faculty can be concupiscible (desiring pleasurable things or things useful for achieving pleasurable things) or irascible (desiring to defeat adversaries or to repel harmful or destructive things). Actions of animals are only partially guided by the commanding motive powers. They also have « instinctual behavioural patterns which are directly actualized by certain imaginations and evaluations, such as releasing themselves from a trap, building nests, and taking care of their offspring » (KNUUTTILA, 2004: 222)²⁶. The apprehensive powers comprise the five external senses and the five internal faculties. In addition, there are intellectual apprehensive faculties, also encompassing powers of knowing and acting (KNUUTTILA, 2004: 219–220). I will address the apprehensive powers later in this paper. Avicenna's psychology plays an important role both in John of La Rochelle's *Summa de anima*²⁷ and Albert's the Great *De homine*, the two contemporary sources most used by Vincent of Beauvais about the powers of the soul.
- 31 Avicenna's account of the soul is also displayed in our encyclopaedias. For instance, Bartholomew the Englishman draws on a similar distinction between apprehensive (or ordinative) and motive powers in several passages. Nonetheless, this doctrine is most frequently referred to in the *Speculum naturale*, whether directly or via John of La Rochelle or Albert the Great. Thus, at the beginning of the book on the sensitive soul (SN 25), an « actor » passage reflects on the powers of the soul as divided into sense and affection, that is to say, into cognitive and affective or into apprehensive and motive powers (SN, 25.1). Near the end of this book, Vincent refers to Avicenna's account of the motive power, which, like the apprehensive, is twofold: it both orders movement and

executes it. The appetitive power commands the motive power, which in turn is divided into the concupiscible and irascible, depending on whether it orders the body to move towards what is thought to be good, or to avoid what is thought to be hurtful (SN, 25.101). He turns to Albert the Great for a more detailed description of the concupiscible power: It is characteristic of the sensitive soul and its function is to command the movement that acquires what is agreeable. In human beings, in contrast to animals, reason directs the concupiscible and irascible powers (SN, 25.101). In reference to John of La Rochelle, Vincent states that the motive power can be divided into unconscious (*virtus motiva modo naturali*) and conscious striving (*virtus motiva modo animali*). The unconscious striving is not governed by reason and it is not guided by perception (*non secundum apprehensionem*); the conscious striving, by contrast, follows the comprehension of good and bad (SN, 25.102). The motive power is thus related with the natural and animal powers. Another quotation from La Rochelle differentiates between the commanding motive powers and the dispositions towards motion. The commanding motive powers are subdivided into appetitive, affective, and the forces that move the bodily members. The dispositions are related to two of the inner senses (see below). Depending on the « sensible forms » presented by fantasy and on the « intentions of sensible things », we are able to discern good or bad and, subsequently, move towards or away from something (SN, 25.103). This book closes with a chapter on the different kinds of exterior movements that respond to the affective powers (LIESER, 1928: 150–152). La Rochelle's account about unconscious (*modo naturali*) or conscious movement (*modo animali*) is resumed in the book on the rational soul, where it opens the examination of « intellectual movement ». The conscious movement strives for ephemeral goods. It is guided by reason, and develops in the concupiscible, in the irascible, or in the power that moves the members (SN, 27.56)²⁸.

Sensation, Perception, and Knowledge²⁹

- 32 All soul schemes address the union of the soul with the body. « Cognition », as we have seen, has a more or less important place in all of the soul's divisions. It is frequently referred to as an activity in which body and soul concur, since the soul must receive impressions, which are collected in the body or in the bodily organs, in order to be cognisant of the world. This ability results in actions towards what is desired and away from what is feared.
- 33 If we are to consider specific cognitive faculties or the path leading from sensation to knowledge, we find in the encyclopaedias two principal descriptions: The first studies the path from sensation to wisdom (or to God), the second from sensation through perception to knowledge.

From sensation to wisdom

- 34 Already Calcidius (fl. c. 400) in his commentary on *Timaeus* and Boethius (c. 480/85–524/26) in his *Consolatio philosophiae* offered a list of cognitive faculties³⁰. Similar cognitive faculties were the subject of 12th century anagogical literature, the aim of which was to prepare the individual for contemplation (NÉMETH, 2013: 33). Different schemes leading from sensation or sensuality to intellect or intelligence via imagination and / or reason were formulated by authors such as Abelard (1079–1142),

Thierry of Chartres (c. 1085–c. 1155), William of Conches, Richard (†1173), and Godfrey of Saint-Victor (c. 1125–1195). In some of the writings by Hugh of Saint-Victor (c. 1097–1141), Isaac of Stella (c. 1100–1178), and Alain of Lille (c. 1125/30–1203) one finds a fivefold distinction regarding *sensus*, *imaginatio*, *ratio*, *intellectus*, and *intelligentia*³¹. The views of Hugh of Saint-Victor and Isaac of Stella were influential for the author of *De spiritu et anima* (NÉMETH, 2013: 69). All these schemes have in common that reason is considered to have a limited cognitive potential, and that the adequate cognition of God is accomplished « through some supra-rational cognitive faculty ». The definition of the latter faculty (usually *intelligence*) varies greatly depending upon the theological anthropology of each author (NÉMETH, 2013: 35).

- 35 Following Bartholomew, who quotes from the Pseudo-Augustinian treatise *De spiritu et anima*, there are five powers at issue in the definition of the relation between the soul and the body. The first of these is sensation (*sensualitas*). It is responsible for the movement of the body, the senses, and desiring things that are appropriate for the body. In this passage, sensation assumes the function of the irascible and concupiscible powers, by means of which the animal moves towards agreeable things and away from harmful ones. The second power is sense (*sensus*). Through sense the soul acquires knowledge of the sensible and corporeal things when they are present. The third is imagination (*imaginatio*), by means of which the soul can see the forms of the corporeal things when they are absent. The fourth is reason (*ratio*), which discerns between good and bad, truth and falsehood. The fifth is intellect (*intellectus*), which comprehends not material things but rather intelligible things such as God and angels. The first three powers respond to the unibility of the soul with the body; they give life to the body, and enable the interior and exterior senses to attain their completion. These powers are common to human beings and brute animals. Reason and intellect, however, correspond to the capacity of the soul to separate from the body and to continue to exist, like the angels. This is accomplished in two ways: by the intellect considering the higher things, and reason the lower things (DPR, 3.6.7–32).
- 36 This fivefold model is often referred to in Thomas's *Liber de natura rerum*, which is largely based on the Pseudo-Augustinian treatise. Thomas explains that, although the soul is merely one, it has different properties or capacities. Included are sense (*sensus*), imagination (*imaginatio*), reason (*ratio*), intellect (*intellectus*), and intelligence (*intelligentia*). In the same manner as the visible world is ordered according to a fivefold order (i.e. earth, water, air, firmament, and empyrean or higher heaven), there are for the soul in its bodily existence five stages in the progression towards wisdom (LDNR, 2.4). The only one of these five stages that connects with the external world is sense, for the connatural faculty to sense follows necessarily from the existence of the outer world. Imagination and reason are thought of as interior. Imagination is based on sensible things. Reason is the rational spirit that, since it is a gift of God, is apt to know the truth and to love the good (LDNR, 2.8). Intellect and intelligence are superior, because God is also fire and light. The light sends out from itself its splendour, retaining some light in itself. In this way, intelligence is illuminated for the knowledge of the truth. Fire also sends out heat from itself, but it does not lose it, and kindles affection and love for virtue. Just as the eye needs the outer light of the sun to see, so does intelligence require the divine light (LDNR, 2.8).
- 37 These five stages can also be divided according to reason. Below reason are the things that we perceive through the senses, such as hard and soft, white and black. Close to

reason and open to it are the things that we perceive through reason, such as convenient and inconvenient, truth and falsehood, just and unjust. Reason itself is a certain movement of the soul (*animus*), which arouses the sense of the mind (*sensus mentis*) and distinguishes truth from falsehood. Above reason are things upon which prevails neither sense nor reason, such as things that are understood by means of divine revelation or believed based on the authority of the Scriptures, such as the Trinity. Since God is the sum of all things and therefore nothing singular, He cannot be subject to the movements of reason, for reason is concerned with individual matters (LDNR, 2.8). In the same chapter, Thomas delves further into the five activities of the soul. Like Bartholomew, he describes the senses as perceiving present forms, and the imagination as receiving the corporeal forms of corporeal things that are absent. The imagination thus originates from the senses and varies according to them; it is, however, an interior faculty. Reason perceives the natures, forms, differences, attributes and accidents of the corporeal things. These things are incorporeal; they are beyond matter and their existence is dependent on reason. Through reason, the things which originate in the concrete things are drawn away from them: It is not the thing itself that is the object of reason, but the nature of it, according to which every thing is what it is. The intellect perceives the invisible things, like angels, demons and every spirit that has been created. Intelligence is immediately below God, comprehending Him as real and really immutable. With respect to their objects, then, it can be stated that the soul perceives the corporal objects by means of the senses, their similitudes by means of the imagination, their natures by means of reason, the created spirits by means of the intellect, and the uncreated spirit by means of intelligence. Yet Thomas also names seven different powers of the soul and their activity: The sense perceives, the imagination represents, the faculty of reasoning (*cogitatio*) forms, the understanding (*ingenium*) investigates, reason judges, memory preserves, intelligence comprehends and brings to meditation or contemplation. He specifies that the understanding investigates unknown things, while reason distinguishes the things that have been found and memory stores the things that have been judged, offering other objects for judgement. Thus, there is a hierarchy from the lowest to the highest. In the faculty of reason, in addition, there is something that tends towards the celestial and heavenly, which is called wisdom (*sapientia*). There is also something that concerns the transitory and ephemeral, which is called prudence (*prudentia*) (LDNR, 2.8). In the following chapter, one finds a similar enumeration, this time of six powers—namely, sense, imagination, reason, memory, intellect and intelligence (LDNR, 2.9). Another list of the cognitive powers of the soul describes them as degrees of corporal life, which are arranged according to the image of higher life. This list considers sensation (*sensificatio*), imagination, memory, and providence as a similitude of reason. The fourth degree (providence) mingles with the Platonic idea of the concupiscible and irrational soul (LDNR, 2.10).

- 38 In an « actor passage » of the first book on the soul (actually, a quotation from Pseudo-Augustine's *De spiritu et anima*), Vincent mentions a similar fivefold distinction when explaining how the body works: The body is composed of organs; these organs are composed, in turn, of uniform parts; these uniform parts are composed of humours; the humours are composed of foods, and the foods of elements. Nevertheless, none of these correspond to the soul, even though the soul acts in these « organs ». If these are unregulated and unordered in their life, the soul withdraws, dragging everything away with it, that is, sense (*sensus*), imagination (*imaginatio*), reason (*ratio*), intellect

(*intellectus*), intelligence (*intelligentia*), and also concupiscibility and irascibility (SN, 23.60). In discussing the rational soul, he asserts that the powers of the soul are divided differently by different authors. Quoting John of La Rochelle³², he summarises the account of John of Damascus, who distinguishes between cognitive and life-giving (*zoticae*) powers. The cognitive powers are intellect, opinion, imagination and sense (*sensus*). The life-giving correspond to the Platonic appetitive powers (SN, 27.2). Some chapters later, the cognitive powers correspond to the « fivefold division »: sense, imagination, reason, intellect, intelligence.

- 39 Like Bartholomew and Thomas, Vincent also resorts to Pseudo-Augustine's *De spiritu et anima* to expound the idea of a fivefold progression from sensation to wisdom. Near the opening of the book on the animal soul (25), he states that to ascend from the lower to the higher it is necessary to come across sense, imagination, reason, intellect, intelligence. Only then can the utmost faculty of wisdom be attained (SN, 25.2). Vincent describes the operation of these faculties using similar, and even the same terms used by Thomas (SN, 25.2; cf. LDNR 2.8). Accordingly, he reiterates that this distinction corresponds to the fivefold division of the visible world (SN, 25.1). Quoting also « Hugo » (*De spiritu et anima*), and in contrast to Thomas's adaptation, he considers the senses and the imagination (*sensus, imaginatio*) to be exterior powers, and reason, intellect, and intelligence (*ratio, intellectus, intelligentia*) to be interior powers. Intellect and intelligence are considered superior (SN, 25.3). Nonetheless, the differentiation of further abilities or acts of the soul leads to more progressions. In this way, the discussion of the five progressions leads to a discussion of the activities of meditation and contemplation, which is taken up with an exposition of reason, intellect, and intelligence (SN, 25.2).
- 40 In the same chapter, a quotation by John of La Rochelle deepens the description of the intellectual or rational virtue, intellect, and intelligence. With regard to its acts, the rational virtue may be called understanding (*ingenium*) when it investigates, discernment (*ratio*) when it distinguishes, and memory (*memoria*) when it is retaining (SN, 25.2)³³. In the next two chapters, Vincent turns to *De spiritu et anima* for recounting the powers of the soul and their operation (SN, 25.3)—passages also quoted by Thomas. As in the Pseudo-Augustinian treatise, Vincent seems to demarcate the apprehensive and the appetitive powers from the intellectual on the basis of their dependency on the external world. Accordingly, the soul has to draw away all corporeal senses to understand the divine, God, or itself. Its appropriate actions for this purpose are meditation, the diligent investigation of the hidden truth, and contemplation, the delightful admiration of the manifest truth (SN, 25.4). Sensation is defined as the affection (*passio*) of the soul in the body, which is incited by external properties. The imagination operates with the form of the corporeal objects, which are no longer present. The faculty of thought (*cogitatio*) is the soul's occupation with anything. Meditation is thought that investigates manner, cause, and reason of each of the objects. Inherent to the soul is understanding (*ingenium*), the soul's faculty of knowing itself. Reason is the power to distinguish and judge everything. Intellect is perception of things that are true. Intelligence is concerned with God. In this way, sense is the source of imagination, and the imagination of cognition. The faculty of thought motivates understanding, and understanding motivates reason; reason leads to the intellect, intellect to intelligence, and intelligence to contemplation (SN, 25.4).

- 41 The fivefold distinction is referred to again in one of the opening paragraphs of the book on the rational soul (SN 27), where Vincent describes briefly the fivefold distinction of *De spiritu et anima* (SN, 27.4). At this point, an « actor » passage introduces the notion of *mens* according to the Damascene. The operations of the « mind », like the fivefold distinction as well, comprise the activity of the senses along with attaining the higher good (SN, 27.4; cf. LIESER, 1928: 163).
- 42 To conclude this section, one may ask—following Christel Meier-Staubach (MEIER 2003, 180)—whether the anagogical literature of the 12th century and its deliberations about the path leading from sensation to God contributed to the reception and understanding of the Avicennian writings, which I will be dealing with in the following section.

Avicenna's faculty psychology: inner senses, intellect, and abstraction

- 43 As already stated, a significant source for understanding sensation, perception and knowledge in the compendia (above all in *Speculum naturale*) is Avicenna's *De anima*. According to this treatise, the impressions of the five outer senses are processed and abstracted by means of five inner senses or faculties: common sense, imagination, imaginative (in animals) or cogitative power (in humans), estimative power, and memory (DE LIBERA, 2014: 967). These inner cognitive faculties have two different objects: the forms, which are apprehended first by the outer senses and then transmitted to the inner senses; and the « intentions of the sensory objects », a kind of content apprehended merely by the inner senses (a recurring example is the lamb's perception of the wolf as a threat) (DE LIBERA, 2014: 968). Common sense is a receptive instance. In several passages, Avicenna also names this sense fantasy. It integrates all the data of different sensations, apprehending it simultaneously, and in this manner transforms « sensation into perception ». It is situated in the first cavity of the brain. The imagination retains « what [the] common sense permanently receives from the five senses, after the disappearance of the sensory input in question ». It gives form to two series of data, one imaginary (in the sense of fantasy, for instance, when we entertain the form of a straight line that is drawn by a falling water drop), and the other real. It is located in the cavity of the anterior ventricle of the brain (DE LIBERA, 2014: 968). The role of the imaginative or cogitative power is « to separate or combine the images retained by the imagination, to divide and compose images ». Its seat is the brain's central cavity. The proper object of the estimative power is the « intentions of the sensible objects »; its location is the extremity of the central cavity of the brain. Memory, located in the brain's posterior cavity, « fulfils the same function of retention in relation to the estimative faculty as the imagination in relation to [the] common sense » (DE LIBERA, 2014: 968).
- 44 Actual knowledge can be attained, though, only by means of the intellect, by which human beings grasp the intelligibles. This is called the theoretical intellect, « in distinction to the practical intellect, which relies on the body » (HASSE, 2000: 175). The intellect, the theoretical faculty, shifts from potentiality to actuality by means of four different relationships to the intelligibles, characterised by four different degrees of actualisation (HASSE, 2000: 183). All humans after birth have an intellect in the form of *intellectus materialis*; it is predisposed for the reception of intelligible forms, not having yet received them. An *intellectus in habitu* has « primary intelligibles »: rational

processes and principles such as « The whole is bigger than the part » (viz. axiomatic knowledge). The *intellectus in effectu* « has acquired secondary intelligibles but does not consider them at the moment ». The *intellectus accomodatus* is at work if the intelligible forms are actually present in the soul; this happens when the intellect *in effectu* « connects with the separately existing active intellect » (HASSE, 2000: 178-179; HARVEY, 1975: 48). This active intellect is the ultimate ground for the appearance of abstract universal forms in the soul (HASSE, 2000: 175-176). The operation of these four intellects conforms to the intellection of syllogisms: The second intellect (able to grasp axioms) and the third (able to apprehend forms whose origin is in sense data) are different parts of the syllogism. The fourth intellect is the one that actually thinks the syllogism (HASSE, 2000: 183).

- 45 In the encyclopaedias of Thomas and Bartholomew, the doctrine of the inner senses plays a minor role. In some passages of *De proprietatibus rerum*, Bartholomew seems to entertain a somewhat idiosyncratic view of this doctrine, based partly on the « treatise on the soul » of Michael Scot (*Liber introductorius*). He asserts that the sensitive soul has its seat in fine brain ventricles and links it to the *apprehensive* and *motive* virtues. It divides the apprehensive power into the common and the exterior sense. The latter comprises sight, hearing, taste, smell and touch (DPR, 3.9.2-14). In another passage, he mentions four of the five inner senses: the inner or common sense, the imaginative power (not distinct from imagination), the estimative power (equated with reason), and memory. Not only does he not distinguish between imagination and the imaginative or cognitive power, but he also appears to understand the common sense as composed of imagination, reason, and memory (DPR, 3.10.2-11, from Iohannitius). In a later account of the different powers of the soul, based again on the discussion about the soul in the *Liber introductorius*, he considers at first the sense (described as sensation and as common sense), the imaginative virtue (equated to imagination), the estimative virtue or sensitive reason, and the recollective or retentive power. The estimative virtue is defined as being common to animals and human beings. It enables human beings to be prudent and sagacious when avoiding the evil and seeking the agreeable (DPR, 3.11.3-20).
- 46 The doctrine of the five inner senses is clearly visible in Vincent's book on the sensitive soul (25), as Christel Meier-Staubach has already shown (MEIER, 2003: 168-173). The first draft of this book was thoroughly revised and significantly expanded. An analysis of the differences between the first and the final version, has permitted Monique Paulmier-Foucart to identify a « regression » of the medical division in favour of the philosophical one—or, as she explicitly states, from the division into natural, vital and animal powers to the division into vegetal, sensible and rational souls (PAULMIER-FOUCART, 2000: 281-282; 278-279). Similarly, Christel Meier-Staubach points out to a « broadening of the soul problematic », which implies a « turnaround » from an Augustinian model to the Aristotelian philosophy of nature, as it was mediated and modified by Arabic authors (MEIER, 2003: 166). This turnaround is better understood if considering the different divisions of the soul already examined. The Avicennian account of the soul—as synthesized by John of La Rochelle and Albert the Great—offers both an alternative explanation of the working of the soul in the body that subsumes in part the medical pneuma theory, and underscores the path that goes from the sensible to the intelligible objects through abstraction. As a result, the Avicennian approach answers also to the operation of the soul in the body and to the relationship between

the senses, able to perceive material objects, and the intellect, able to perceive immaterial objects.

- 47 This turnaround can be appreciated first if one considers the order of the chapters. As mentioned above, the first chapters concern the fivefold progression of the soul towards wisdom after *De spiritu et anima*. These are immediately followed by a number of passages that discuss abstraction. These serve as a preamble for the description of the working of the five exterior senses. Towards the end of the book, we find a section that deals with the inner senses. Vincent cites Avicenna and Aristotle, but more often John of La Rochelle. The bulk of the quotations, however, is taken from the *Summa de homine* of Albert the Great, who refers especially to Avicenna's *De anima*. Quotations of Albert's work appear primarily in the discussion of the common sense; they are completely absent from the examination of the estimative power and of memory³⁴.
- 48 The discussion of abstraction is introduced by a quotation from Aristotle, who in turn cites Plato, who states that we know by means of similitude. The soul knows everything, and everything is known according to its respective principles. Intellect, science, opinion or estimation, and the sense are concerned with different objects (SN, 25.5). Correspondingly, Vincent examines the operation of some of the interior apprehensive powers, which are proper to the sensitive soul, together with the intellect, which is proper to the rational soul. He first refers to Avicenna to help explain how the sense and intellect receive respectively sensible and intelligible forms. The sensitive soul grasps the sensible forms without the matter to which these forms are bound. Intelligence and the soul apprehend the objects through their forms, as they can be associated with these forms because of the similitude and the agreement with them with respect to their kind. Since intelligence has no form of its own, but rather apprehends all forms, it is necessary for intelligence (and for the soul) to be the form of all things (SN, 25.6). Next, Vincent introduces Avicenna's view of abstraction: To grasp something is to apprehend an apprehensible form, detached from matter by abstraction. There are different degrees of abstraction and, therefore, also different abstract forms. These forms have some traits that are accidental, and some that are essential. In some cases, abstraction from matter is done with some appendages that adhere to the form on account of matter. The sense (*sensus*) requires matter to apprehend the forms, since it operates only in the presence of a material object. The imagination or imaginative power grasps this form as being significantly separated from matter: A form can remain in the imagination, even if the actual object is no longer present. Nevertheless, the separation from matter is not complete, since the imagination comprehends the sensible form along with the individual conditions under which an object was perceived, such as position, appearance, etc. For this reason, the imagination cannot grasp a form in such a manner that all the individuals of a species agree with it. A human being is imagined as this particular human being, not as every human being. The estimative power goes a little bit further in the order of abstraction. It is capable of apprehending intentions, such as good or bad intentions, which are not material in themselves. Nevertheless, they are apprehended insofar as they are present in some material object. Finally, the intellective power is able to apprehend forms that are not material, not corresponding to material things, and not joined in any way with matter. It knows the object according to its essence, as it apprehends completely the intellectual objects. Once devoid of all matter, of all singularity, an object may be predicated of all human beings, not just of one (SN, 25.7). A quotation from La Rochelle's *Summa de anima* (actually, a collation of quotes) explains the already known

twofold differentiation of the cognitive power: It has an understanding with respect to nature (*modo naturali*), and another insofar as it has a sensitive soul (*modo animali*). The first apprehension occurs by means of fantasy. It is called natural, because its operation is analogous to the operation of the vegetative power and does not respond to reason. The animal apprehension, by contrast, can respond to reason, as it is patent in the operation of the common sense. There are exterior and interior apprehensive faculties (SN, 25.8; cf. also 27.3).

- 49 Introducing Vincent's account of the five inner senses is a quotation from Avicenna that explains how the forms, after having been apprehended by the exterior sense, are operated upon by some of the interior faculties. Vincent then introduces the common sense by citing John of La Rochelle. This sense operates in concert with the outer senses, « passing » the sensible forms to the imagination and the imaginative power. Faculties such as the estimative power (*estimatio*) and memory are capable of comprehending intentions: A sheep recognises, without the assistance of the exterior sense, the intention of enmity when seeing a wolf, so that it can flee from it (SN, 25.85). Some of these faculties apprehend and operate (common sense, cogitative and estimative powers); some apprehend but do not operate (imagination and memory) (SN, 25.85). The next chapter complements the working and location of the five inner apprehending powers according to Avicenna (SN, 25.86), a description quite close to the one given at the beginning of this section. The exposition on the inner virtues concludes with a reiteration of this theme by La Rochelle (SN, 25.86).
- 50 The next ten chapters (87–96) examine the common sense. In reference to Avicenna, Vincent repeats the above-mentioned description about the location and functioning of the common sense (SN, 25.90). Another similar account is taken from Algazel, who stresses that all individual senses are drawn from the common sense; the impression of the outer senses is in turn communicated to the common sense (SN, 25.91). The common sense works in two ways, as illustrated by a quotation from La Rochelle: First, it facilitates the exchange between itself and the particular (outer) senses, so that we are able, for instance, to « see what we hear » or « hear what we see »; second, it unites the sensations of the various senses, so that we can know that something like sugar is both white and sweet. It is also called formal because it retains the forms received from the exterior sense, even though they are no longer present. It also apprehends the common sensibles such as magnitude, number, repose, etc. (SN, 25.88)³⁵. Moreover, this faculty is appropriately called « interior » since it works even without the input of the outer senses, for instance, when we dream (SN, 25.86). Because the interior sense composes and divides the sensations of the particular senses, it can deceive if its composition or division does not correspond to the sensed object. The particular senses, by contrast, cannot deceive (SN, 25.96).
- 51 In reference to Albert's *De homine*, some principal traits of the common sense are exposed once again, some definitions clarified, and some thoughts introduced for the first time. Thus, the properties of « community » and « centrality » of the common sense account for the unity of an object beyond the manifold sensations (SN, 25.88)³⁶. No sense on its own can discern the composition or the division of the sensible objects according to affirmation or negation (i.e., to their truth or falsehood). Only one single power can compare, and then judge what is being compared (SN, 25.89)³⁷. Another passage seems to adhere to the doctrine of the animal spirit for locating the common sense. The first cavity of the brain is also the place where the animal spirit is gathered

together. Vincent recapitulates its principal characteristics: This faculty is called « common » because it receives all forms, and its proper object is the forms which the five senses impress upon it. There is a difference between sensation and the objects of fantasy (mere apparitions) or imagination (images). Avicenna, according to Albert, identifies common sense and fantasy, because he comprehends fantasy somewhat broadly, in a manner that encompasses both common sense and imagination (SN, 25.90). The common sense and the outer senses are then considered in terms of their primacy: The common sense cannot operate without the particular senses. In this respect, the common sense is dependent on the particular ones. Nevertheless, the common sense resides in the organ from which the animal spirit reaches the organs of the particular senses. In this regard, the particular senses derive from the common sense, which is properly more primary, since it gathers in itself all the particular sensible things and completes them, for it is able to make a unified composition from the different impressions (SN, 25.91).

- 52 A further explanation in the next chapter makes plain that the particular senses are joined in the common sense as parts of an integral whole through inquisition, composition, and division. The common sense completes the information carried from a particular sense and it examines further information from other senses, so that it can perceive (SN, 25.92). The objects of the common sense are the five common sensibles: motion, rest, shape, number, and size (SN, 25.94)³⁸. Based on the common sensibles, we can comprehend such different things as time (a kind of motion and its cause), space (a kind of size), and a sentence (it corresponds to number, since the voice is air that has been weakly stroked) (SN, 25.95). There are, as another quotation of Albert shows, three acts of the common sense: one, an act *per se*, according to which the common sense apprehends the « common sensibles »; two, an act *per posterius*, according to which it is capable of sensing all the particular senses, since these are in the common sense; and three, an act *per accidens*, according to which the acts of the particular senses correspond to it (SN, 25.96).
- 53 Vincent discusses the imagination in two chapters (97–98), in which he quotes *De spiritu et anima*, John of Damascus, and Aristotle. The passage from the Pseudo-Augustinian treatise discusses the origin of the imagination in the « imagining chamber » and its movement from the forebrain to the midbrain, where it joins the rational soul (SN, 25.97). The passage of John Damascene further explains that the imagination is a passion of the irrational soul, and that an apparition (*phantasma*) is an empty passion, since it is an image that has no object as a source (SN, 25.97). Following Aristotle, everything that has sense also has fantasy and appetite (desire). Sense is either a potency (such as sight) or an act (such as the act of seeing). In contrast to imagination, the sense needs the presence of sensible objects. Therefore, fantasies are often false, and senses cannot but be true (SN, 25.98; for a similar—in part the same—account, see SN, 25.5).
- 54 The subsequent passage on Aristotle distinguishes between a sensitive fantasy in irrational creatures, and a desiderative or cognitive fantasy in rational animals. The being that imagines moves due to the imagined form, whether by the sense (animals) or by cognition (human beings) (SN, 25.98). Vincent turns to La Rochelle and the idea that the imagination is an interior sensitive power. With regard to the hierarchy of the powers of the soul, the imagination is above the exterior senses. With regard to the

order of the acts, imagination is below the exterior senses, since the senses are necessary for there to be imagination (SN, 25.98).

- 55 The estimative power comprises only one chapter, one quotation from John of La Rochelle, according to whom this power is located in the upper part of the middle ventricle of the brain. It apprehends the « intentions of the sensible things ». Its understanding is immaterial, for it concerns the accidents of the sensible objects (for instance, if they are beneficial or useless). Its operation has three forms: on account of a natural cause, whether as a consequence of an instinct (the sheep's fear of the wolf) or as a reflective motion (a baby who is falling try to grasp something); on account of experience, where also imagination and memory help (a dog fearing the stick, which has beaten him); and according to similitude, that is, analogies on the basis of what has already been experienced (for instance, a fruit initially judged as something sweet from its visual appearance, without having actually been tasted) (SN, 25.99)³⁹.
- 56 Vincent dedicates one chapter to memory (SN, 25.100). This chapter opens with a quotation from La Rochelle, indicating the location and function of the « memorative power » according to Avicenna. A passage from Pseudo Augustine's *De spiritu et anima* adds that memory retains received things, represents past things, and recovers forgotten things. It operates together with reason, because reason needs memory to move towards the unknown and to retain what is already known (SN, 25.100). Following Aristotle's *De memoria et reminiscentia*, Vincent explains that we know the past through memory, and the present through the senses. Every memory takes place after the moment (*tempus*) in which the sensible object was originally sensed (SN, 25.100)⁴⁰. Lieser notes that Vincent's exposition of the five progressions from sensation to perception seems to reduce the five powers of Avicenna to the three of John of Damascus (LIESER, 1928: 149-150). Nevertheless, this assertion does not apply without qualification, for the discussion of the intentions does not fit at all in the threefold scheme of the Damascene.
- 57 A further discussion of the inner cognitive faculties appears in the book on the rational soul (SN, 27). Considerations of the inner senses have their place here, for it is the task of the intellect (in some quotations equated with reason) to transform perception into knowledge. Since Vincent has in view a number of different competing explanations, his order is not thoroughly systematic. A rough schema follows the Augustinian division into superior (*mens*) and inferior reason (*ratio vel intellectus*) (LIESER, 1928: 161-162)—a division also adopted in part by La Rochelle in his *Summa* (TELLKAMP, 2010: 38)⁴¹.
- 58 In the opening of this book, three different « actor » passages deal with the different orderings of the powers of the soul. The first explains different manners in which the soul can be divided (SN, 27.1). The second sheds some light on the many divisions of the soul which are read in the Pseudo-Augustinian *De spiritu et anima* (SN, 27.2). In the third, Vincent explicitly distinguishes between the division of the interior powers according to John of Damascus (imagination, reason, memory) and according to Avicenna (common sense or fantasy, imagination, imaginative power, estimative power, memory) (SN, 27.3). Aside from the following « actor » passage, the next chapters consist primarily of quotations from Augustine's *De trinitate*. These are interrupted, as Lieser (1928: 166) notes, by citations inspired by a completely different body of thought and which do not properly fit in the preceding analysis. Thus, the notion of cogitation (*cogitatio*) in Augustine leads Vincent to introduce the understanding of this notion in

Damascene and Avicenna (as interpreted by La Rochelle) (LIESER, 1928: 166-167). Differentiating between the operations of common sense, imagination, and cogitative virtue (*excogitatio*), John of Damascus points to the ability of the latter to make judgements and compositions, and also to be the origin of action or flight (SN, 27.9). The next chapter reviews the functioning of common sense, imagination, and the cogitative / imaginative power according Avicenna. Vincent makes at this point clear that the third inner power is called cogitative if it responds to the intellect, imaginative if it responds to the animal virtue (SN, 27.10). The subsequent chapters address memory. A quotation from La Rochelle is joined to a definition from the Damascene: « memory is the accumulation of sense and of intelligence ». All sensible things, according to La Rochelle, are received by the sense and become opinion; intelligible things are received by the intellect and become intelligence. We have, nevertheless, no memory of the substance of the intelligible forms (SN, 27.11). The discussion of memory and the « storage » of the intelligible forms is continued with a quotation from Albert the Great's *De homine* (SN, 27.11)⁴². The next chapters resume the views on memory according to Constantine the African and Aristotle. Before turning again to Augustine, another quotation from La Rochelle presents the « reminiscence » as a special case of memory, which acts by retrieving the forms that have been forgotten (SN, 27.14).

- 59 The Avicennian faculty psychology is also at the base of Vincent's discussion of the intellect (*virtus intellectiva*) and its role in the process of abstraction. By means of four quotations from the *Summa de anima*, he resumes the discussion on the order of abstraction of the corporeal forms, the different manners of apprehending corresponding to the different perceptive instances, and the knowledge of the intellect. The explanation of four of the inner senses (leaving memory aside) and its bringing together with the intellect roughly mirrors the description of the process of abstraction in book 25, consisting in a quotation from Avicenna (SN, 27.35). The difference in abstraction regarding the accidental and essential characteristics of the sensible forms, another notion from the Avicennian passage, is deepened to some extent in the next chapter (SN, 27.36). The different orders of abstraction and their relationship to knowledge is further analysed in the ensuing passage: If the forms are thoroughly abstracted from matter and the appendages that depend on matter, then we are dealing with spiritual forms—or metaphysical forms, as they are called by the philosophers. There are other forms that are abstracted from matter, but which are not abstracted from their material condition. This is the case of the mathematical forms. A « line » and a « figure » do not define whether their matter is made up of gold or of wood, but they do define their position and situation (in space). Similarly, a number does not define whether there are two or three objects (in the world), but it does define the multiplication and the division which belong to the material conditions. And then there are other forms that are abstracted in their own ways, for instance, the natural or physical forms such as fire, earth, bones and flesh. They are abstracted with respect to a situation and array that are proper to matter and the conditions of matter (SN, 27.37). These three different orders of abstraction are related respectively to the activities of the intellect, the imagination and the common sense, and the outer senses. These abstractions are not fixed. What is perceived by the outer senses can be apprehended in a further stage by the imagination, and subsequently by the intellect. La Rochelle also relates these different manners of knowledge to the Augustinian doctrine of the three kinds of visions (*visio intellectualis*, *visio spiritualis* [here: *imaginaria*], *visio corporalis*) (SN, 27.37).

60 The subsequent chapter resorts also to John of La Rochelle for explaining how the forms (or *species*) that are apprehended by the sensitive soul reach the rational soul, introducing the distinction between the passive and the active intellect. The passive intellect is transitory; the active is immortal and separable (from the body). The passive intellect is the inferior power of the intellective part, which is connected with the sensitive part, and it belongs to the rational soul as long as this is united to the body. It grasps the intelligible forms in the sensible forms (*phantasmata*); its proper function is to connect the act of the intellectual power with the act of the sensitive power, offering the sensible forms for abstraction. This power is also called reason (*rationalitas*) and has its place in the middle chamber of the brain, called logistical or rational. It is able to distinguish the universals in the particulars, although the universals are not comprehended in a universal manner (SN, 27.38). The separable intellect can be divided into possible and active intellect. These intellects differ with respect to their nature. The first is similar to matter and is possible with respect to anything, like a board on which no signs have yet been written. The active intellect is active like the light, which always illuminates. The intelligible light of the first truth is naturally impressed upon us. The active intellect corresponds to the intelligible forms that are being shown, in the way light corresponds with colours. In this manner, the possible intellect can receive the intelligible species, and the active intellect makes manifest the first truth that was given to human beings (cf. TELLKAMP, 2010: 39). By means of the possible intellect we are able, therefore, to apprehend what has not been apprehended (SN, 27.38). Vincent adds that, according to Avicenna, something is needed for the intellect to be transformed from a state of potentiality to a performative state (*in effectum*). This is the active intellect (SN, 27.38). Further discussions on nature and activity of the intellect and its knowledge of the intelligible forms appear in the subsequent chapters, which mainly refer to Albert the Great. With respect to the role of the intellect (or reason, or intellective power) in abstraction, one can refer here to two quotations from Albert which distinguish different kinds of intellects according to Alexander of Halès, Al-Kindi (c. 801–873), Ibn Rushd (latinised as Averroes, 1126–1198), the Damascene, Avicenna and Aristotle (SN, 27.39; see also 27.40). Vincent also provides an explanation of the process leading from the possible intellect to science according to Albert (SN, 27.46), and from the possible (equated with the material) intellect leading to the *intellectus accomodatus in usu* referring to La Rochelle (SN, 27.46). Chapters 49–52 (all Albert's *De homine* quotations) also discuss the functioning of the possible and active intellects, considering as well their knowledge of things and *phantasmata* (cf. LIESER, 1928: 183)⁴³. An account of the diverse operations of the speculative intellect (to discover, to judge, to remember, and to interpret) according to La Rochelle (53–55) closes the section on rational knowledge. In the remaining chapters, which deal with rational motion, there is one passage dedicated to fantasy. Fantasy is considered here, as in book 25 (103), to be a motive power or an initiation of motion.

Concluding remarks

61 The schemes of the soul are ambiguous. The « medical distinction »—the vital, natural, and animal powers—can be understood as an elaboration on the sensitive soul of the Aristotelian distinction, while the Platonic division of the soul is considered exclusively in its concupiscible and irascible contents, and frequently incorporated into other

soul's schemes (such as Avicenna's). The encyclopaedists are basically synthesising other syntheses and they are aware of the various accounts of the soul and its powers. Since they are not aiming at the formulation of an all-encompassing system, these various accounts are dispersed throughout their books on the soul. Yet certain central principles are at work on the general level of their expositions: Bartholomew the Englishman arranges the first chapters of his book on the soul to some extent in accordance with the Aristotelian division of the soul, explicitly orders the soul's potencies according to different criteria, and finally embeds his discussion about the five senses and the pulse in the explanation of the *vis animalis* of the « medical distinction ». In the *Speculum naturale*, the Aristotelian division is the leading principle for the arrangement of books 24–27 of the soul, which are preceded by the medical discussion (at least according to the intended order).

- 62 That the different views of the soul are dispersed throughout these books is the main reason one cannot follow a strict division between « medical-physiological » and « functional-philosophical » sources. Such a clear-cut distinction would obscure the intertwining of the different traditions, and also the fact that some philosophical accounts « absorb » and further develop some contents of the medical tradition. In other words, the usual reference to « physicians » and « philosophers » by the encyclopaedists should be taken as a reflection of the origin of their sources, and not as a rigid dichotomy.
- 63 In general, Thomas's *Liber de natura rerum* offers the more theological, « Augustinian » view of the soul—in line with the 12th century theological authors, especially the writer of the treatise *De spiritu et anima*, which is Thomas's main source. The physiological-medical doctrine of the ventricles of the brain and the related concept of the spirit are nonetheless present to some extent, though we may simply be witnessing the incorporation of these contents into *De spiritu et anima*. Bartholomew's *De proprietatibus rerum* exhibits also many elements of Peripatetic philosophy, several of which are indebted to the « treatise on the soul » contained in Scot's *Liber introductorius*: First the Aristotelian, and then the « medical » distinction account for the diverse actions of the soul within the body. Thus, one may attribute to these authors an understanding of the soul that comprises the « physiological-medical » account. Since other Peripatetic traits have found their way into both encyclopaedias, one may ask why some of the « new » knowledge (such as abstraction and the role of the intellect within) was not incorporated as well. By contrast, all the different accounts of the soul are well represented in Vincent's *Speculum naturale*. In a sense, this work accomplishes most effectively the objective of gathering all available wisdom into a single book: It incorporates quotations from traditional Augustinian accounts all the way up to the reworking of Avicenna's philosophy by John of La Rochelle and Albert the Great. The breadth of quotations exemplifies the impetus of exhaustiveness that characterises his whole work. His main aim is to offer an all-encompassing rather than a coherent account of the soul. The novel arrangement and expanded treatment of the soul in *Speculum* (25) reflects his belief that knowledge about the inner senses and the role of the intellect(s) should be available to his fellow brethren.
- 64 In line with classical philosophy, the subjects of sensation and perception appear in the examinations of the union of the soul and body. The encyclopaedists reflect on the « incorporated » soul in its ability to perceive and to know, on the one hand, and in its ability to strive for something and to move towards it, on the other. The explanations

of perception consider both the physiology of the cognitive faculties and the process of abstraction. This process of abstraction is recognisable to some extent in all three encyclopaedias, though especially in *Speculum naturale*. The passages dedicated to abstraction also indicate an initial shift from an explication of cognition based on the role of the animal spirit and the morphology of the brain to one grounded instead in a process that depends on the characteristics of matter, their agreement with the knowledge capacities of the subject (allowed by the inner senses) and the operation of the intellect(s).

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APPENDIXES

The Powers of the Soul in *De proprietatibus rerum* (Bartholomew the Englishman)

N.B. This characterisation is based roughly (it has been completed) on Long, « Introduction (Liber III) », 2007: 139–140.

1. According to its end
 - 1.1 rational power. It divides according to its acts into:
 - 1.1.1 speculative intellect
 - 1.1.2 practical intellect
 - 1.2 concupiscible power. Origin of the affections:
 - 1.2.1 joy
 - 1.2.2 hope
 - 1.3 irascible power. Origin of the affections:
 - 1.3.1 fear
 - 1.3.2 pain
2. According to its act
 - 2.1 vegetable. It divides into:
 - 2.1.1 generative
 - 2.1.2 nutritive. It divides into:
 - digestive
 - retentive
 - expulsive
 - 2.1.3 augmentative
 - 2.2 sensible, it has the following powers:
 - 2.2.1 apprehensive, encompasses:
 - five exterior senses
 - common or interior sense
 - 2.2.2 motive (see also 4.3), encompasses:
 - natural
 - vital
 - animal
 - 2.3 rational
3. According to its body
 - 3.1 sensuality
 - 3.2 sensation
 - 3.3 imagination
 - 3.4 reason
 - 3.5 intellect
4. By means of which the soul operates in the body
 - 4.1 natural (located in the liver)
 - 4.2 vital (located in the heart)
 - 4.3 animal (located in the brain). It comprehends:
 - 4.3.1 ordinative
 - fantasy or imagination
 - judgment and reason
 - memory

4.3.2 sensitive

4.3.3 motive

The powers of the Soul in *Liber de natura rerum* (Thomas of Cantimpré)

1. Platonic Distinction

1.1 *vis rationalis*

1.2 *vis concupiscibilis*. Origin of the affections:

1.2.1 joy

1.2.2 hope

1.3 *vis irascibilis*. Origin of the affections:

1.3.1 fear

1.3.2 pain

2. Aristotelian Distinction

2.1 *anima vegetabilis*

2.2 *anima sensibilis*

2.3 *anima rationalis*

3. Cognitive powers

3.1 *sensus*

3.2 *imaginatio*

3.3 *ratio*

3.4 *intellectus*

3.5 *intelligentia*

Or:

3.1 *sensus*

3.2 *imaginatio*

3.3 *ratio*

3.4 *memoria*

3.5 *intellectus*

3.6 *intelligentia*

Or:

3.1 *sensus*

3.2 *imaginatio*

3.3 *cogitatio*

3.4 *ingenium*

3.5 *ratio*. It comprehends:

3.5.1 *sapientia*

3.5.2 *prudentia*

3.6 *memoria*

3.7 *intelligentia*

The soul in *Speculum Naturale* (Vincent of Beauvais)

A. Books on psychology (cf. LIESER, 1928: 6)

Book 23 (81 chapters): the soul according to its substance

Books 24-27: the soul according to its powers, namely:

Book 24 (88 chapters): natural, vital, animal powers; vegetable soul

Book 25 (104 chapters): the sensible soul

Book 26 (111 chapters): sleep, wakefulness; vision, rapture, ecstasy

Book 27 (103 chapters): the rational soul

B. Content matter of the relevant books

Book 23 (adapted from LIESER, 1928: 98-127)

1. Definition (9-10)
2. Origin (1-2, 11)
3. Nature and Being
 - 3.1 Simplicity (12-13)
 - 3.2 Relationship to its powers (14-16)
 - 3.3 As image of God (17-24)
 - 3.4 As image of every creature (25)
 - 3.5 The soul of human beings, of brute animals, and of angels (26)
4. Soul and Body
 - 4.1 Soul's Independence from space and from its body (27-41)
 - 4.2 Union of soul and body (42-48)
 - 4.2.1 Antagonism between both components (43-44)
 - 4.2.2 Soul as form of the body (42-43, 46)
 - 4.2.3 The Problem of the Intermediaries (44, 46-47)
 - 4.3 Essential union between body and soul (49-61)
 - 4.4 Passivity of the soul (57-59)
5. Immortality (62-81)

Book 24 (cf. LIESER, 1928: 131-132)

1. Natural, vital, animal power (24,3-60)
 - 1.1 *virtus naturalis* (4-10)
 - 1.1.1 *virtus generans* (4)
 - *virtus informans* (4)
 - 1.1.2 *virtus nutriens* (4)
 - 1.1.3 *virtus pascens* (4). It divides into:
 - virtus attrahens* (5)
 - *virtus retinens* (5)
 - *virtus immutans secunda* or *digerens* (6)
 - *virtus expellens* (6)
 - 1.2 *virtus vitalis* (11-55). It divides into:
 - 1.2.1 v. v. *agens* (11 u. 52-54)

1.2.2 *v. v. patiens* (55)

1.3 *virtus animalis* (56). It divides into:

1.3.1 *mens*. It divides into:

- *phantasia* (imagination)
- *cogitatio* (faculty of thought)
- *memoria* (memory)

1.3.2 *virtus sentiens* (sensation)

1.3.3. *virtus movens* (faculty of movement)

2. Vegetative soul (24,63-88). It divides into (cf. LIESER, 1928: 135-139):

- *vis nutritiva* (66-71)
- *vis augmentativa* (74)
- *vis generativa* (80, 84, 85)

Book 25 (cf. LIESER, 1928: 139)

1. About the apprehensive and motive powers in general (1-7)

2. Sensitive Knowledge / Sense cognition (8-100)

2.1 Exterior (8-83)

2.1.1 General considerations (8-27)

2.1.2 Singular considerations:

- Sight (28-49)
- Hearing (50-60)
- Smell (61-69)
- Taste (70-75)
- Touch (76-83)

2.2 Inner (84-100)

2.2.1 General considerations (84-86)

2.2.2 Singular considerations:

- *sensus communis* or *phantasia* (87-96)
- *imagination* (97-98)
- *aestimatio* (99)
- *memoria* (100)

3. Sensitive Motion / Movement

Book 26

Wakefulness, sleep, and dream

Book 27 (cf. LIESER, 1928: 161-193)

1. Rational Knowledge

1.1 *ratio superior*

1.1.1 The notion of *mens*

1.1.2 The image of God

1.1.3 Related knowing powers:

- *vis excogitativa*
- *vis memorativa*
- *reminiscentia*

- *synderesis*
 - *conscientia*
 - 1.2 *ratio inferior*
 - 1.2.1 The notion of *ratio inferior*
 - 1.2.2 Related knowing powers:
 - *opinio*
 - *virtus intellectiva*
 - *intellectus agens*
 - *intellectus possibilis*
2. Rational Movement

NOTES

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2. For a thorough analysis of the place of sense perception in these encyclopaedias, see ORTÚZAR ESCUDERO M. J., « The Place of Sense Perception in Thirteenth-Century Encyclopaedias », *Revista Española de Filosofía Medieval*, 25, 2018a, p. 99-123.
3. For a further discussion of this book, see LONG R., « The Contribution of the Books on the Soul and the Body to the Dissemination of Greco-Arabic Learning », in VAN DEN ABEELE B. - MEYER H. (eds.), *De proprietatibus rerum: Texte latin et réception vernaculaire. Actes du colloque international, Münster 9.-11.10.2003*, Turnhout, 2005, p. 137-149: 138-143.
4. Lieser’s thorough analysis of the doctrine of the soul in the *Speculum naturale* still offers a useful and sound guide through this complex and vast material. Here his findings are summarized in a more encompassing framework: This analysis considers not two, but four different distinctions of powers of the soul; it emphasizes the role in attaining wisdom or knowledge by the specific cognitive faculties; it addresses the contributions by John of La Rochelle and Albert the Great more distinctly against an Avicennian background; it discusses the partition in *vis naturalis*, *vis vitalis*, and *vis animalis* in light of medical sources (and texts influenced by them) from the 11th and 12th centuries.
5. For this project, see URL: <http://sourcencyme.irht.cnrs.fr/> Most of the quotations from the chapters of *Speculum naturale* on the soul were identified by Eduard Frunzeanu.
6. For the idea of the soul as being made of different parts or as having many faculties, see CORCILIUS K. - PERLER D., « Introduction », in CORCILIUS K. - PERLER D. (eds.), *Partitioning the Soul. Debates from Plato to Leibniz*, Berlin – Boston, 2014, p. 1-14; PERLER D., « Introduction », in PERLER, D. (ed.), *The Faculties: A History*, Oxford, 2015, p. 3-18.
7. For a discussion of the faculties of the soul in Plato, see CORCILIUS K., « Faculties in Ancient Philosophy », in PERLER D. (ed.), *The Faculties*, 2015: 23-32.
8. For a characterisation of the « Platonic » soul in this book, see PONGRATZ L., *Die psychologische Struktur in der pseudoaugustinischen Schrift 'De spiritu et anima'. Inaugural Dissertation zur Erlangung der Doktorwürde der Philosophischen Fakultät der Ludwig-Maximilian-Universität zu München, 1950* (unpublished): 111-122.

9. For a discussion of the authorship of this book, and a negative answer to the authorship of Alcher of Clairvaux, see NORPOTH L., *Der pseudo-augustinische Traktat De spiritu et anima*, Köln, 1971: 52-72.
10. For a discussion about the use of Jean de la Rochelle of this source, see MICHAUD-QUANTIN P., « Une division « augustinienne » des puissances de l'âme au moyen âge », *Revue des Etudes Augustiniennes*, 3, 1957, p. 235-248: 237-238.
11. For a discussion of the four emotions and the « Platonic » soul in *De spiritu et anima*, see PONGRATZ, *Die psychologische Struktur*, 1950: 95-96.
12. The knowledge of the rational soul is the subject of SN 27. 29-40. Following mainly La Rochelle, Vincent deals with the knowledge of God by intelligence (*supra se*), of the pure spirits by the intellect (*iuxta se*), of the soul (*intra se*), and of the objects of the world by reason (*infra se*); cf. LIESER L., *Vinzenz von Beauvais*, 1928: 174-175.
13. For the iteration of the quotation of *De spiritu et anima* at the beginning of these two books, see PAULMIER-FOUCART M., « L'évolution du traitement des cinq sens dans le *Speculum maius* de Vincent de Beauvais », in CALLEBAT L. – DESBORDES O. (eds.), *Science antique - science médiévale. Actes du colloque international, Mont-Saint-Michel, 4-7 septembre 1998*, Hildesheim i.a., 2000, p. 273-295: 281.
14. The questions 8-68 of this work build a « disproportionately extended philosophical section on the vegetative, animal, and rational parts of the soul »; cf. HASSE N., *Avicenna's De Anima in the Latin West. The formation of a peripatetic philosophy of the soul, 1160 - 1300*, London / Turin, 2000, (Warburg Institute Studies and Texts, 1): 62.
15. The last section of this book is entitled *De divisione virium anime secundum Avicennam*. For the schema of the soul powers according the *Summa de anima*, see LIESER, *Vinzenz von Beauvais*, 1928: 128-129; for the nine divisions of the soul in the three works of La Rochelle, see MICHAUD-QUANTIN, « Une division « augustinienne », 1957: 236.
16. Although never explicitly mentioned by Bartholomew the Englishman (except in the final and perhaps later table of *auctoritates*), Michael Scot's *Liber introductorius* is an important source for DPR, 3. One of the four manuscripts of this book, which represents a shorter redaction and dates from the 14th century, contains a long treatise on the soul (MS Escorial f. III.8, ff. 34ra-53vb). In his edition, Long identifies parallelisms with Scot's work in eleven of the twenty-four chapters, while chapters 8, 9, 11, and 16 seem to derive entirely from it. Long mentions that the listing of definitions of the soul featured here (DPR, 3.2.3-77) is « virtually identical » to the one of that manuscript (see Long R., « Introduction (Liber III) », in van den Abeele B. *et alii* (eds.), *De proprietatibus rerum*. vol. I, 2007: 138). Hasse identifies still more quotations from this book in DPR, especially the medical ideas exposed in Scot's « treatise on the soul » (ff. 46ra to 48vb) are borrowed by Bartholomew (DPR, 3.8-21), cf. HASSE, *Avicenna's De Anima*, 2000: 23-30 (for the medical borrowings, see p. 29, n. 87). For Scot as a source of other books (DPR, 1, 2 and maybe 8), cf. DRAELANTS I., FRUNZEANU E., « Le savoir astronomique et ses sources dans le *De mundo et corporibus celestibus* de Barthélemy l'Anglais », *Rursus*, 11, 2017, placed on line 22 December 2017. URL : <http://journals.openedition.org/rursus/1352> ; DOI : <https://doi.org/10.4000/rursus.1352>.
17. In his *Libellus apologeticus*, the preface to the *Speculum maius*, Vincent states that he is not composing one text, but merely compiling one. He is thus an actor, and not an author (*auctor*). In the *Speculum naturale*, the actor passages seem to have generally a didactic character and take sometimes the form of a scholastic « *quaestio* », see PAULMIER-FOUCART M., « Les passages Actor dans le *Speculum maius* de Vincent de Beauvais: essai de typologie », in BOUFFARTIGUE J. – MELONIO F. (eds.), *L'Entreprise encyclopédique*, Nanterre, 1997, (Littérales, 21), p. 207-219: 216-219. Cf. also VILLARROEL I., « Las fuentes ocultas del actor en el tratado sobre la scientia moralis del *Speculum doctrinale* (V-VI) de Vicente de Beauvais », *Rursus*, 11, 2017, placed on line 22 December 2017, consulted 24 April 2019. URL: <http://journals.openedition.org/rursus/1381>; DOI: 10.4000/rursus.1381.

18. For the identification of the philosopher with La Rochelle, and for a discussion of chapters 46 and 47, see LIESER, *Vinzenz von Beauvais*, 1928: 118–120.
19. For a discussion of the passage of La Rochelle, which associates directly the nature of the elements to the humours, see RYAN D., *An Examination of a Thirteenth-Century Treatise on the Mind / Body Dichotomy. Jean de La Rochelle on the Soul and its Powers*. Submitted in fulfilment of the requirements for the Degree of Doctor of Philosophy, 2010 (unpublished), consulted 16 July 2017. URL: http://eprints.maynoothuniversity.ie/2566/1/Version2_Denise_Ryan_PhD_Final_Submitted_2010_corrected.pdf, p. 101.
20. This discussion of the "pneuma" theory is taken partly from ORTÚZAR ESCUDERO, M. J., « The Role of the 'spiritus animalis' in Accounts of Perception. Medical and Philosophical Remarks from three 13th-century Encyclopaedias », *Vincent of Beauvais Newsletter*, 42, 2018b, p. 4–16.
21. In the chapters discussed in this paragraph, Long identifies parallelisms with Scot's treatise on the soul (*Liber introductorius*) in DPR, 3.12.3–15; 3.12.25–31; 3.13.2–15; 3.14.11–15; 3.16.2–30. Figuring prominently among the sources of this section on the soul are 12th century authors, but also new Avicennian theories and authors of the medical tradition of Monte Cassino–Salerno. For a discussion of this section and its sources, see MORPURGO P., « Fonti Di Michele Scoto », *Rendiconti dell' Accademia Nazionale dei Lincei*, 38, 1983 : 59–71; HASSE, *Avicenna's De Anima*, 2000: 23–30.
22. For the account of perception according to Augustine, see SILVA J. F., « Augustine on Active Perception », in SILVA J. F. - YRJÖNSUURI, M. (eds.), *Active Perception in the History of Philosophy. From Plato to Modern Philosophy*, Cham, 2014, p. 79–98; also ORTÚZAR ESCUDERO M. J., *Die Sinne in den Schriften Hildegards von Bingen. Ein Beitrag zur Geschichte der Sinneswahrnehmung*, Stuttgart, 2016: 124–127.
23. A similar distinction was used by Bartholomew and Thomas when referring to the Aristotelian threefold soul.
24. *De spiritu et anima* knows just one chamber (and not two) in the front of the brain; cf. NORPOTH, *Der pseudo-augustinische Traktat*, 1971: 112.
25. John of La Rochelle was Alexander of Halès's main collaborator, and probably also the author of the first and fourth tomes of the *Summa halensis*. For a short introduction to this work, see SCHUMACHER L., « The Summa Halensis: Sources and Context. Introduction », in SCHUMACHER L. (ed.), *The Summa Halensis: Sources and Context*, Berlin – Boston, 2020, p. 1–8, placed on line 22 June 2020. URL: <https://doi.org/10.1515/9783110685022-003>.
26. Another division of the human soul into affective and cognitive parts is to be found in the second chapter of *De spiritu et anima*, see MICHAUD-QUANTIN P., « La classification des puissances de l'âme au XII^e siècle », *Revue du moyen âge latin*, 5, 1949b, p. 15–34: 24–25.
27. For a short account of the interpretation and elaboration of Avicenna by La Rochelle, see KNUUTTILA S., *Emotions in Ancient and Medieval Philosophy*, Oxford, 2004: 230–232.
28. Cf. LIESER, *Vinzenz von Beauvais*, 1928: 184–185. For further development of the subject, see chapters 64 to 68 of this book.
29. The distinction between sensation and perception, which I will be using in the following, is not an antique or medieval one. Nevertheless, this modern distinction is useful for explaining the soul capacities and their contribution to knowledge.
30. For Boethius, see also KEMP S., *Cognitive psychology in the Middle Ages*, Westport Conn i.a., 1996, (Contributions in psychology, 33): 16; MICHAUD-QUANTIN, « La classification », 1949b: 16–17.
31. For an overview table, see NÉMETH C., *Contemplation and the Cognition of God. Victorine Theological Anthropology and its Decline*. Doctoral Dissertation, Central European University, Budapest, Hungary, 2013 (unpublished), consulted on 20 September 2017, URL: <http://www.etd.ceu.hu/2014/mpnec01.pdf>, p. 34. For « Cistercians » approaches, see MICHAUD-QUANTIN, « La classification », 1949b: 20–32.
32. For the quotation from the Damascene by La Rochelle, see RYAN, *An examination*, 2010: 138.

33. For the quotations of La Rochelle from *De spiritu et anima* for describing this fivefold distinction, see RYAN, *An examination*, 2010: 133.
34. Already in *De homine*, Albert postulates that fantasy together with the estimative power operate in perceiving intentions. The function of fantasy is to compose or divide forms by « which true or false intentions are produced »; the estimative power « points to an action regarding a material object »; see TELLKAMP J. A., « Albert the Great on Structure & Function of the Inner Senses », in TAYLOR R. – OMAR I. (eds.), *The Judeo-Christian-Islamic heritage: Philosophical & Theological Perspectives*, Milwaukee / Wis., 2012, p. 305–324: 321. This disparate view regarding intentions could be the reason for not referring to *De homine* when explaining the other inner senses.
35. For an account of the common sense by La Rochelle (and also for the source of this quotation), see RYAN, *An examination*, 2010: 198.
36. For the « coordinative » ability of the common sense in Albert, see THEISS P., *Die Wahrnehmungspsychologie und Sinnesphysiologie des Albertus Magnus. Ein Modell der Sinnes- und Hirnfunktion aus der Zeit des Mittelalters*, Frankfurt am Main – Wien i. a., 1997: 85–86.
37. For the common sense as the instance through which we became aware of our perception in Albert, see THEISS, *Die Wahrnehmungspsychologie*, 1997: 88.
38. For the « sensibilia communia » in Albert, see THEISS, *Die Wahrnehmungspsychologie*, 1997: 86–87.
39. For a commentary on this passage, cf. LIESER, *Vinzenz von Beauvais*, 1928: 148. For Avicenna's account of the intentions of the sensible forms and its repercussions in some authors of the 13th century, including La Rochelle, cf. RYAN, *An examination*, 2010: 200–207.
40. For the assertion, that it can be no memory without « phantasmata », see RYAN, *An examination*, 2010: 146–147.
41. La Rochelle's employs a sort of equivalence system, consisting basically in the correlation of an element of the philosophical or Avicennian classification with one faculty that the *sancti* mention and study. In this manner, he considers the existence of one inferior and one superior intellect in Avicenna. The latest (practically equal to the active intellect) obtains the Augustinian name of *mens* or *intelligentia* with regard to their cognitive functions. The same happens to the inferior intellect (possible or speculative): it is equated to the *ratio*; cf. MICHAUD-QUANTIN P., « Les puissances de l'âme chez Jean de la Rochelle », *Antonianum*, 24, 1949a, p. 489–505: 498–499.
42. For the problem of the « storage » of the intelligibles according Albert the Great, see also THEISS, *Die Wahrnehmungspsychologie*, 1997: 108.
43. In *De homine*, Albert follows mainly Aristotle for his section on the intellect, because he rejects the Avicennian view of the active intellect as separate; cf. HASSE, *Avicenna's De Anima*, 2000: 66.

ABSTRACTS

The compilations of Bartholomew the Englishman, Thomas of Cantimpré, and Vincent of Beauvais (*Speculum naturale*) manifest in some manner how perception was considered during the first half of the 13th century. To properly understand perception, though, one has to first deal with the different conceptions of the soul. Two different views of the soul have often been distinguished in these encyclopaedias: one « physiological-medical » and the other « functional-philosophical ». In this paper, I offer an alternative interpretation based on a systematic analysis

of the powers of the soul and the various explanations of their faculties. This leads to the conclusion that there are at least four different, yet interconnected views of the soul in the encyclopaedias. In addition, cognition itself is considered a process that encompasses several faculties. These faculties account either for an ascending path towards God or for intellectual knowledge (by means of abstraction).

Les compilations de Barthélemy l'Anglais, de Thomas de Cantimpré et de Vincent de Beauvais (*Speculum naturale*) montrent comment la perception était considérée pendant la première moitié du XIII^e siècle. Mais pour bien comprendre cette conception de la perception, il faut d'abord s'intéresser à celle de l'âme. Deux conceptions différentes de l'âme ont souvent été distinguées dans ces encyclopédies: l'une "physiologico-médicale" et l'autre "fonctionnaliste-philosophique". Cet article propose une interprétation alternative basée sur une analyse systématique des pouvoirs de l'âme et des diverses explications de ses facultés. Cela conduit à la conclusion qu'il existe dans les encyclopédies de cette époque au moins quatre conceptions de l'âme, différentes mais interconnectées. En outre, la cognition elle-même est considérée comme un processus qui englobe plusieurs facultés. Ces facultés constituent soit un chemin ascendant vers Dieu, soit une connaissance intellectuelle (par le biais de l'abstraction).

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