

Michael of Ephesus and the philosophy of living things (*In De partibus animalium*, 22.25–23.9)

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Introduction

As in other scientific disciplines, for biological knowledge the Byzantines depended largely on ancient Greek science, especially of the Hellenistic period. Under the appellation ‘biology’, we should understand those sciences which had to do with medicine, pharmacology, veterinary medicine, zoology, and botany.¹ As regards theories about living things (animals and plants), Byzantium carried on a tradition that synthesized elements from ancient Greek philosophy and the Christian religion (especially the philosophy of the Church Fathers). The crucial point here is the introduction by Christianity of the theory of the historical creation of the world, from its initial elements to the formation of humans, who were seen as the crown of the universe. In a rural civilization like Byzantium, proximity to the world of plants and animals produced popular literary works that played with the idea of human primacy over all other living beings, primarily animals, often through prosopopoeia.² Since Greco-Roman times, Aristotelian reflection on the conditions of knowledge of biological phenomena, in other words Aristotle’s biological epistemology, had fallen into oblivion;³ what remained from his contribution to biology was the collection of natural data and curiosities that offered, together with other sources, material for late ancient compilations. We have to wait for the eleventh–twelfth centuries in order to see, in the person of Michael of Ephesus, a commentator on Aristotle’s philosophy of biology, and this paper will focus on him. Michael of Ephesus is an obscure writer; not much is known about his life, though there is no doubt that he is the author of a corpus of Aristotelian commentaries that took its final form in the eleventh–twelfth centuries.⁴

¹ For related bibliography, see Hunger (1978, section III/9); Vogel (1967: 264–305; 452–70); see also Théodoridès (1977).

² Among these animal fables were the *Physiologus*, the *Pulologus* etc. See Krumbacher (1897: section 2.3).

³ Lennox (1994: 7–24).

⁴ Michael of Ephesus is now thought to be a writer of the twelfth century, one of the circle of the Byzantine princess Anna Komnene’s scholiasts of Aristotle, if we accept the position

Michael of Ephesus' praise of the study of animals and plants

In *Parts of Animals* I, there is a passage that Jaeger considered as a kind of encomium written by Aristotle in order to praise the empirical scientific method, and a work quite in opposition to the stance of Aristotle's idealistic youth when he was greatly influenced by the dialectics of his master Plato. It is, Jaeger says, almost a confession about a new ideal of science, characteristic of his philosophical evolution.⁵ Jaeger's overall position about Aristotle's progress in philosophy has been often criticized⁶ but the encomiastic passage is still considered emblematic of Aristotle's progress in philosophy and/or his philosophical convictions.⁷ The passage⁸ was com-

of Robert Browning (1962: 1–12). See also Frankopan (2009). For more information on Michael of Ephesus, see Arabatzis (2006: 17–36).

⁵ See Jaeger (1934: 337). See Chroust (1963: 33), who refers to the passage as an 'autobiographical sketch'.

⁶ See Chroust (1963); Düring (1961: 284); Ross (1975: 8; 13); Pellegrin (1990: 65).

⁷ See Shields (2007: 15): 'This passage ... provides a window into Aristotle's emotively charged intellectual character'; and Pellegrin (1995: 25): it is 'un éloge de la biologie et des considerations méthodiques sur l'étude des parties des animaux'.

⁸ The text is as follows: 'Of substances constituted by nature some are ungenerated, imperishable, and eternal, while others are subject to generation and decay. The former are excellent and divine, but less accessible to knowledge. The evidence that might throw light on them, and on the problems which we long to solve respecting them, is furnished but scantily by sensation; whereas respecting perishable plants and animals we have abundant information, living as we do in their midst, and ample data may be collected concerning all their various kinds, if we only are willing to take sufficient pains. Both departments, however, have their special charm. The scanty conceptions to which we can attain of celestial things give us, from their excellence, more pleasure than all our knowledge of the world in which we live; just as a half glimpse of persons that we love is more delightful than an accurate view of other things, whatever their number and dimensions. On the other hand, in certitude and in completeness our knowledge of terrestrial things has the advantage. Moreover, their greater nearness and affinity to us balances somewhat the loftier interest of the heavenly things that are the objects of the higher philosophy. Having already treated of the celestial world, as far as our conjectures could reach, we proceed to treat of animals, without omitting, to the best of our ability, any member of the kingdom, however ignoble. For if some have no graces to charm the sense, yet nature, which fashioned them, gives amazing pleasure in their study to all who can trace links of causation, and are inclined to philosophy. Indeed, it would be strange if mimic representations of them were attractive, because they disclose the mimetic skill of the painter or sculptor, and the original realities themselves were not more interesting, to all at any rate who have eyes to discern the causes. We therefore must not recoil with childish aversion from the examination of the humbler animals. Every realm of nature is marvellous: and as Heraclitus, when the strangers who came to visit him found him warming himself at the furnace in the kitchen and hesitated to go in, is reported to have bidden them not to be afraid to enter, as even in that kitchen divinities were present, so we should venture on the study of every kind of animal without distaste; for each and all will reveal to us something natural and something beautiful. Ab-

mented on by Michael of Ephesus and I will try to analyze what the Byzantine commentator saw in the Aristotelian exhortation to study living things. His commentary *in extenso* is as follows:

(a) ... there are things that need a brief survey, so that nothing should be left unexamined. Then, this is said about ‘the exchange as to the philosophy of divine matters’; as if the animals and the plants were saying to us: ‘men, although the heavenly bodies are noble and most divine, there are still things of sublimity [θαυμάσια] about us so that you should take us into account [make a rational inquiry about us] and do not despise us in every respect’. ‘Not having graces charming the senses’, he [sc. Aristotle] said to be the most disgusting and aversion-provoking animals such as the snail and many others. And ‘not to provoke childish aversion’ means that we should not avoid like children those animals that are not pleasant to the eye but approach them for the sublimity [θαυμάσιον] that there is in them.

(b) The story about Heraclitus is the following: Heraclitus of Ephesus was sitting inside the ἰπνός (and ἰπνός means the bread oven in a house where we bake the bread and thus we speak about ‘ipnites bread’); sitting then in the ἰπνός and feeling hot he asked the strangers who came to see him to enter; ‘even here, he said, there are gods’. Because, the phrase ‘all is full of gods’ is a Heraclitean doctrine. And because in the works of nature there is above all the final cause, and everything is or becomes because of the final cause; and as finality, he [sc. Aristotle] considered the realm of the good (because everything that is to become is becoming because of something that is taken as its good); and because it is like that, it is imperative that we investigate it.

(c) If someone thinks of the theory of organic parts of which the animals consist as being ignoble [ἄτιμον], for not producing pleasure to our senses, he must think the same concerning himself; for, what pleasure can the menses of women produce, or the foetal membranes that cover the baby when it comes out of its mother’s womb, or the flesh, nerves and similar stuff of which a man consists? Significant of that is the phrase ‘one cannot see without much repugnance that of which a human being consists’; we name repugnance the sorrow that is produced to the senses or, as we might say, the disgust.⁹

The passage has been divided into three sections:

(a) In this section we form a general idea about the specificity of the ‘sciences’ of living things as Michael sees it: the scholiast personifies the animals and plants so that they appear to ask for the attention of all humans—

sence of haphazard and conduciveness of everything to an end are to be found in nature’s works in the highest degree, and the end for which those works are put together and produced is a form of the beautiful. If any person thinks the examination of the rest of the animal kingdom an unworthy task, he must hold in like disesteem the study of man. For no one can look at the elements of the human frame—blood, flesh, bones, vessels, and the like—without much repugnance.’ (*Parts of Animals* 1.5, 644b22–645a31. Trans. W. Ogle in Barnes [1984]. This is the English translation of Aristotle’s encomium of biology to which I will refer throughout the present article).

⁹ *In De part. an.* 22.25–23.9. The translation of Michael’s texts is mine unless otherwise indicated.

not exclusively the scientists—besides the attention devoted to the noble things in heaven; Michael of Ephesus is not interested here either in the scientist or in the cultured man as he is in the initial passage of his commentary (*In De part. an.* 1.3–2.10), making thus a shift from epistemology to the ontological structure of the knowing subject. Michael insists also on the need to transcend, in paying attention to living things, the feelings of possible disgust that stem from a childish aversion from the less appealing aspects of nature.

(b) Michael refers to the well-known testimony of Aristotle about Heraclitus (to which Michael annexes the formula ‘all is full of gods’). Michael’s underscoring of the idea of the final cause is followed by a demand for further analysis (‘it is imperative that we investigate it’) which leads to the third section of the passage.

(c) In this last section we witness the full development of Michael’s thesis concerning the primacy of the good of each living thing as its final cause and the rejection of the sentiment of aversion in the study of animals; the feeling of repugnance in science is supposed to become more comprehensible with the use of the examples of human anatomy and birth that cause disgust.

The above three parts can be summed up in the following three propositions:

- (a1) Plants and animals ask for the attention of humans;
- (b1) ‘Philosophy’¹⁰ states that every part of the world has its own share of sublimity;
- (c1) Our attention should be turned towards organic material (animals and plants) notwithstanding the aversion that this may provoke.

Two points mark a difference between Michael of Ephesus and Aristotle and deserve further analysis: (1) the personification of animals and plants, which is an innovation of Michael’s in relation to Aristotle’s text; and (2) the idea that no natural pleasure supports the scientific interest for living things.

¹⁰ On what ‘philosophy’ meant precisely for Michael we are unable to pronounce in a decisive and conclusive manner. Later, we shall discuss some of the evidence.

*The 'exchange' between divine philosophy and
natural science*

For Aristotle the praise of natural science is understood within the limits of an 'exchange' (ἀντικαταλλάττεσθαι) with divine philosophy. This happens because, regarding living things, as he says, 'their greater nearness and affinity to us balances [exchanges] somewhat the loftier interest of the heavenly things that are the objects of the higher philosophy ...'. According to I. Düring, Michael's interpretation is quite divergent from Aristotle's position; the Stagirite, says Düring, supports a metaphysical worldview that relates the knowledge of living things to the knowledge of the celestial world.¹¹ To reinforce his position and make the meaning of the term 'exchange' more comprehensible, Düring presents two more uses of the notion in Aristotle. The first has to do with communication in love relations: 'But those who exchange not pleasure but utility in their love are both less truly friends and less constant' (*Eth. Nic.* VIII 4, 1157a12, trans. W. D. Ross, revised by J. O. Urmson). It is a formula that alludes, as Düring says, to the following passage from the Platonic *Phaedo*: 'This is not the right way to purchase virtue, by exchanging pleasures for pleasures, and pains for pains, and fear for fear, and greater for less, as if they were coins, but the only right coinage, for which all those things must be exchanged and by means of and with which all these things are to be bought and sold, is in fact wisdom' (*Phaedo* 69a, trans. H. N. Fowler). The second use by Aristotle of the 'exchange'-notion that Düring mentions is about necessity in the moral sphere: 'for "necessary" does not apply to everything but only to externals; for instance, whenever a man receives some damage by way of alternative [sc. exchange] to some other greater, when compelled by circumstances' (*Magna Moralia* I 15, 1188b19–20, trans. S. G. Stock).¹² Pleasure and necessity thus form the essential meaning of 'exchange'.

The core of Düring's criticism of Michael's reading of the Aristotelian encomium of natural science is that the Byzantine commentator does not understand the mechanism of the 'exchange' as Aristotle had conceived of it. The truth is that even between modern scholars there is a difference of opinion about the part this mechanism plays. For J.-M. Le Blond, the 'exchange'-notion suggests that Aristotle's general views about astrobiology

¹¹ Düring (1943:120): 'The sense is thus that the study of the animal nature offers in exchange a certain knowledge of heavenly things—a conception worthy of the master-metaphysician Aristotle.'

¹² See Düring (1943: 120).

and theology are valid even in this first book of the *Parts of Animals* and have not been developed towards empiricism as Jaeger believed to be the case; thus, in Aristotle we witness the ancient cosmological view that was based on the dichotomy between the noble celestial world and the less valued terrestrial one. Consequently, if we follow the evolutionist position of Jaeger—as Le Blond does—this first book does not belong to the final scientific phase of Aristotle’s philosophical activity.¹³ For Düring, on the other hand, the ‘exchange’-notion shows the permanent validity of a first philosophy or a philosophy of first principles in Aristotle’s work independent of his scientific research.

Does Michael’s reference to the ‘noble and most divine heavenly bodies’ mean that he also defends an astrobiological and theological (in the Aristotelian sense) worldview and, if so, is this a prelude to natural science or an ultimate conviction that transcends natural science? In speaking about nobility and divinity in the celestial sphere, Michael says in a passage from his commentary on the *Generation of Animals* that these are determined according to ‘immobility’;¹⁴ whereas in a passage from his *In De motu animalium*, it is ‘priority’ that decides about the nobility and divinity.¹⁵ Is he, then, in his view of scientific nobility as measured by immobility and priority, orientated towards speculative philosophy more than towards empirical research and to what extent is he giving in to Platonism in opposition

¹³ J.-M. Le Blond (1945: 182–83): ‘Dans ce chapitre, comme le souligne W. Jaeger, Aristote semble considérer les astres et les sphères célestes d’un point de vue beaucoup plus positif, qui d’ailleurs se manifestait dans le traité *du Ciel*, à côté des considérations biologiques et théologiques. Dans cette perspective, le mouvement des astres est envisagé d’un point de vue mécaniste et matérialiste Jaeger semble avoir raison de supposer que cette perspective mécaniste et matérialiste est postérieure aux vues sur l’astrobiologie et la théologie sidérale. Nous croyons cependant que cette dernière perspective n’a jamais été écartée totalement. – En tout cas, le traité sur les *Parties des Animaux* ne fait allusion qu’à celle-ci; on peut trouver là une raison de surcroît pour refuser à ce traité une date très tardive.’

¹⁴ ‘The most noble sphere is the unmoved one, then the Cronian and so forth’ (*In De gen. an.* 86.26–27).

¹⁵ ‘Saying that the first mover always moves, he [sc. Aristotle] adds, “for the eternally noble and the primarily and truly good, and not just occasionally good”, like our goods (for these are not always goods), “is too divine and precious to have anything prior to it”, i.e. that it is so divine that nothing is prior in worth to it; for such a thing is more precious [τιμωτερον] than anything’ (*In De motu an.* 114.11–15, trans. Anthony Preus). Michael’s idea of a moving principle (see *In De motu an.* 110.14–16) is, according to Martha C. Nussbaum, a real contribution. See below, n. 41.

to Aristotelianism as Jaeger saw it, i.e. scientific empiricism? Düring does not believe that Michael, in interpreting the 'exchange'-notion, thinks as a metaphysician, a quality that he reserves solely for Aristotle. What, then, is the precise nature of Michael's interpretation?

Another way to deal with the problem would be the following: the opposition between celestial and terrestrial is transcended in Aristotle by the establishment of different autonomous sciences that allows the scientific study of the material world; I have argued elsewhere that Michael defends precisely that view of science.¹⁶ Yet, his image of the natural world is different from Aristotle's and the example of animals and plants appealing to the attention of humans is an indication of this fact.

In sum, the two corresponding views that can be gathered from the passages of Aristotle and Michael of Ephesus are the following:

(1) For Aristotle, the difference in value between the celestial and the terrestrial world is bridged by the instauration of autonomous sciences and the pleasure that the scientist can draw from the study of the natural world after overcoming some possible aversion.

(2) For Michael of Ephesus, living things testify to their sublimity as objects of attention; there is no appeal to natural pleasure but only a warning against aversion as an epistemological obstacle and a reminder of the likeness between the organic parts of humans and other living things.

Thus, the surface structure of Michael's argument may be phrased as follows: (a2) animals and plants ask for the attention of humans; (b2) although the celestial world is noble, living things such as animals and plants possess their own sublimity; (c2) humans, who are part of the material world, should study animals and plants.

(c2) needs further clarification in order to understand Michael's position in relation to the modern readings of Aristotle. I will try to show next that Michael's interpretation of Aristotle's text constitutes an original approach.

Beliefs, perceptions and living things

Let us now look more carefully at the appeal of the plants and animals to humans and ask whether we can distinguish here some kind of scepticism toward general human reasoning (scepticism played a role in the Christian tradition as a challenge to the overestimation of human reason). The relativistic stand concerning the perception of the value of the different animal

¹⁶ See Arabatzis (2009).

species is a characteristic of scepticism and constitutes one of the so-called sceptical modes. The idea of human excellence among the animal beings that is presented by the dogmatic argument goes as follows: if x appears F to animals of kind K , then x is F provided that K is the human kind. This position is subject to a sceptical suspension of judgment through the following reasoning: x appears F to animals of kind K and x appears F^* to animals of kind K^* —but we have no reason to prefer K to K^* . For the Sceptics, there is a primacy of perception in comparison to beliefs and thus: if x appears F to sense S and x appears F^* to sense S^* , there is no way to establish a hierarchy of senses or otherwise prefer S to S^* .¹⁷

The sceptical argument leads to a distinction underscored by Richard Sorabji between beliefs and perceptions in the animal world that has to do with the two general disciplines dealing with the epistemology of the science of animals and plants: the philosophy of mind and morals. Aristotle is willing, says Sorabji, to grant perception to animals but not the formation of beliefs that for him is an exclusive faculty of the human beings. Aristotle's refusal to attribute belief and reason to animals is emphatic in the *De anima* (III 3, 428a18–24).¹⁸ As we have seen in the appeal of the animals and plants, these appear in Michael of Ephesus to hold beliefs—the belief in their own, even relative, value—a position quite contrary to Aristotle's views; yet, animals and plants are in need of human perception in order for their value to be formally recognized. A possible explanation of the reason for this difference between Aristotle and Michael of Ephesus would be that the animals' and plants' appeal is in the mode of 'as if', owing, perhaps, to medieval perceptions of the animals' and plants' position in the world as manifestations of godly nobility. So the whole question may be reducible to different cultural attitudes. It has been said that during the Middle Ages there was a general appeal to the testimony of creatures in order to edify the faithful and correct the morals; it was in fact a part of the technique of sermons.¹⁹ Furthermore, a text like *Physiologus*, written in Alexandria in the third century AD, condenses the symbolic signification of every animal in such a way that zoological knowledge helps the understanding of the meaning of the Bible. The natural characteristics of the animals thus constituted an allegory of the meaning of Creation.²⁰ In Christian discourse, 'complex

¹⁷ See Annas and Barnes (1985: 24–25; 39; 52; 68).

¹⁸ See Sorabji (1993: 37).

¹⁹ Steel (1999: 11–30).

²⁰ Steel (1999: 12–13).

thoughts about soul and body, reason and emotion, salvation and damnation were conveyed by means of animal symbols and metaphors'.²¹ Yet, neither were animal fables unknown to Ancient Greek culture²² nor did animals simply play a higher role in Christian discourse, where they were often called to represent the 'bestial other'.²³ This last aspect was not unfamiliar in Byzantine culture:²⁴ the dialectic of the humble and the noble regarding animals is thus present in the pagan as well as in the Christian world.

We supposed that the plea of the animals and plants is expressed in the mode of 'as if', but the 'as if' mode as a literary technique does not exhaust all the possibilities of the valuation of living things, and in any case we do not have in Michael a literary use, but a philosophical one.²⁵ The question of the value of animals (and plants) in Michael of Ephesus calls for further study of the relevant question in Aristotle. For the latter, such a use of the 'as if' mode may only be imaginary, and in that he does not stand alone. In both modern and ancient philosophy, there are ethical systems that have been founded on the belief that humans are superior to animals because of their possession of language that reflects the possession of rationality. Symbolic communication states the presence of desires and interests that are features proper to humans. The modern trend of ethical 'contractualism' supports the thesis that one has to be 'like' a human being or 'rational agent' in order to possess moral rights. In this way, 'contractualism' radicalizes the οἰκείωσις (likeness) theory that was the cornerstone of Stoic ideas about animals and, more precisely, of their undervaluation. The criterion of rationality is thus likeness to what a human being is.²⁶ The rejection of 'con-

²¹ Gilhus (2006: 263).

²² For speaking animals in Ancient Greek culture and the Bible, compare *Iliad* 19.408–17 and Numbers 22:28–30.

²³ Gilhus (2006: 263).

²⁴ In fact, animals did not possess less of an ambiguous status in Byzantine culture. We witness this ambiguity in various epigrams, such as the following: 'And you also silence the bold passions, | when nature turning away from what is right | slips into beastly monstrosities' (Arsenius); and in another version: 'And he puts the animal passions to silence, | when nature deviating from what is seemly | falls into beastly monstrosities' (Anonymus); the common source of the above two is: 'And then our thoughts come to rest, which are like animals, | when nature deviating from what is seemly | falls into hybrid forms of bestiality' (George Pisides); see Lauxtermann (2003: 205).

²⁵ The 'as if' has been the subject of a particular philosophy, Hans Vaihinger's *Philosophie des Als Ob* (1911), see Vaihinger (2007). Vaihinger's idea is that every general term is a fiction, pragmatic as to its objective, and a sort of regulated error (not a hypothesis) destined to produce local truths. Michael of Ephesus' use of the 'as if' is also made, as we shall see, in the sense of an extension of categorial thought.

²⁶ See Sorabji (1993: 8).

tractualism' and of the Stoic position does not imply the recognition of the value of animals, as we can see in Kant, for whom the act of harming animals is unacceptable not *per se* as a moral contradiction, but because it may imply some harm to humans.²⁷ In Aristotle, the theory of the difference between humans and animals is stated in *Historia animalium* 588a20–24 and is summed up in the 'man alone of animals' formula, i.e. the denial of reason to all other animals except humans (see *Eth. Nic.* 1098a3–4; *Metaph.* I, 980b28; *Pol.* 1332b5–6; *Eth. Eud.* 1224a26–27). In *Parts of Animals* 641b8–9, Aristotle says that animals have locomotion, but only humans possess intellect. Besides this clear-cut distinction, a theory of gradation or continuity from animals to human beings (*scala naturae*) appears in Aristotle's *Historia animalium* 588b15ff. and in *Parts of Animals* 681a12–15, which does not abolish the difference between humans and animals concerning friendship (*Eth. Eud.* 1236b1–6), hope (*De part. an.* 669a20–22), and happiness (*Eth. Nic.* 1178b21–28). These views exercised a major influence upon post-Aristotelian animal philosophy when the Stoics tried to moralize Aristotle's natural science. There is only one passage in Aristotle where his views are qualified. In the seventh chapter of the *De motu animalium*, Aristotle came as close as possible to crediting animals with rationality, a position that has created doubts as to the genuineness of the passage, since it seems at odds with his position elsewhere.²⁸ On the basis of syllogistic thinking in humans, Aristotle noted that animals are impelled to movement and action by a similar desire, which comes about through sensation or imagination *and* thought (see 701a33–36). Michael, in commenting on the *De motu animalium*, states that '[i]t is the impulsive [ὀρμητική] and intentional [ὀρεκτική] power of the soul according to which animals move'.²⁹ So it is obvious that Michael refuses reason to animals and embraces completely the 'man alone of animals' formula. Yet, although he associates himself with the dominant position of Aristotle, his approach to the study of living things is quite different.

Michael turns upside down Aristotle's order of priority as to beliefs and perceptions so that animals and plants appear to have beliefs, but not suit-

²⁷ Newmyer (2006: 15–16).

²⁸ Newmyer (2006: 23). Pellegrin (1995: 17) notes that for Aristotle 'l'animal, tout d'abord, est sujet'; yet, Aristotle refuses the (pre-Socratic) idea of a cosmic order put in place through narration because for him the world is constantly identical to itself and also, consequently, he would admit of no creationism. This latter is the cultural setting in which Michael of Ephesus operates and the fiction of 'as if' is what he proposes.

²⁹ In *De motu an.* 116.8–9, in Preus (1981: 53).

able perceptions. Since Michael considers the animal beliefs in the mode of ‘as if’, even in such a way as to attribute pure reasoning to human perception, his commentary is to be placed in a certain Peripatetic tradition that moves away from the Stagirite’s hierarchy of beliefs and perceptions. Thus, Theophrastus appears in Porphyry saying that animals use reasoning (but not with an argument in the ‘as if’ mode) (*De abst.* 3.25); and his successor, Strato, is of the opinion, as are some later Platonists like Damascius, that perception involves thinking, which (therefore) belongs to all animals (fr. 112 Wehrli from Plutarch, *De soll. an.* 961A). From the second century AD comes another ‘unorthodox’ statement by the Aristotelian Aristocles of Messene who argued that human perception involves belief (δόξα) (fr. 4.23–24 Chiesara).³⁰ Aristotle would have strongly opposed this position, i.e. the idea that perceiving involves cognizing (γνώριζειν).

Yet, Michael’s extension of the capacity for belief to plants makes his possible inclusion among the exponents of these later Peripatetic ideas problematic. By making plants as well as animals express opinions, does he mean to say that plants also hold beliefs? I think that a different meaning must be given to the idea that animals and plants express an apology of the importance of living things. Referring to an analysis that I have made of Michael’s commentary on *Parts of Animals* I, 1.3–2.10³¹ as to the nature of his epistemology, I would say that the voice of the animals is none other than the appeal of intentionality; in other words, the animals and plants that are thought to hold beliefs represent nothing other than intentional objects and so the ‘as if’ mode refers to the idea of intentionality. In this case, the ‘existence commitment’ of the proposition is in no way necessary for the intentional act. The situation is different with regard to the ‘truth commitment’ of the intentional proposition. More precisely, the intentional character of the phrase ‘animals and plants say: animals and plants are worthy of scientific interest’, although not ‘existentially committed’—i.e. not real (animals and plants do not speak)—does not alter the ‘truth commitment’ of the basic proposition ‘animals and plants are worthy of scientific interest’. By using the ‘as if’ mode, Michael advances a double idea of common intentionality and propositional truth that I shall discuss later.³²

³⁰ See Sorabji (1993: 45–47). The editor of Aristocles, M. L. Chiesara, resists Sorabji’s idea (ibid. 46) that Aristocles’ argument is ‘unorthodox’ regarding Aristotelianism (see Chiesara 2001: 133–34).

³¹ See Arabatzis (2006: 318–22) and (2009: 179–84).

³² In modern thought, there is a double approach as to the relations of intentionality with propositional truth. First, there is the heritage of the Austrian school, the ‘rigorous’ pheno-

The Heraclitus example and the ‘incarnation predicament’

The reference to Heraclitus constitutes the second step in Michael’s argument. Yet, right from the start, we have to face a difficulty: Michael annexes to the Aristotelian testimony about Heraclitus a second phrase of supposedly Heraclitean origin, the proposition ‘all is full of gods’. In reality, this phrase belongs to Thales as Aristotle himself states in a critical manner in his *De anima*.³³ Plato mentions the same phrase without attributing it to Thales,³⁴ so that one may suppose that Michael is drawing here on Plato rather than Aristotle. On the other hand, Michael is familiar with the *De anima*,³⁵ so the attribution of Thales’ saying to Heraclitus may be thought to be an error due either to the absence of the original text and its quotation from memory or to the use of a faulty compilation. To be more exact, Michael does not say that

menology and analytic philosophy (J. P. Searle) and, second, a less rigorous phenomenological tendency that makes a loose use of the notion of ‘intentionality’. See Mulligan (2003).

³³ The Aristotelian passage referring to ‘all is full of gods’ is as follows: ‘Certain thinkers say that soul is intermingled in the whole universe, and it is perhaps for that reason that Thales came to the opinion that all things are full of gods. This presents some difficulties: why does the soul when it resides in air or fire not form an animal, while it does so when it resides in mixtures of the elements, and that although it is held to be of higher quality when contained in the former? (One might add the question, why the soul in air is maintained to be higher and more immortal than that in animals.) Both possible ways of replying to the former question lead to absurdity or paradox; for it is beyond paradox to say that fire or air is an animal, and it is absurd to refuse the name of animal to what has soul in it. The opinion that the elements have soul in them seems to have arisen from the doctrine that a whole must be homogeneous with its parts. If it is true that animals become animate by drawing into themselves a portion of what surrounds them, the partisans of this view are bound to say that the soul too is homogeneous with its parts. If the air sucked in is homogeneous, but soul heterogeneous, clearly while some part of soul exist in the inbreathed air, some other part will not. The soul must either be homogeneous, or such that there are some parts of the whole in which it is not to be found. From what has been said it is now clear that knowing as an attribute of soul cannot be explained by soul’s being composed of the elements, and that it is neither sound nor true to speak of soul as moved’ (*De anima* I 411a7–26, trans. J. A. Smith).

³⁴ Plato’s text is as follows: ‘Concerning all the stars and the moon, and concerning the years and months and all seasons, what other account shall we give than this very same,—namely, that, inasmuch as it has been shown that they are all caused by one or more souls, which are good also with all goodness, we shall declare these souls to be gods, whether it be that they order the whole heaven by residing in bodies, as living creatures, or whatever the mode and method? Is there any man that agrees with this view who will stand hearing it denied that “all things are full of gods”?’ (*Laws* X 899b, trans. R. G. Bury). See also *Epinomis* 991d.

³⁵ Michael is said to have commented on the *De anima* (see Arabatzis 2006: 1) and refers to it in his *In De part. an.*

the phrase is by Heraclitus but that it is a Heraclitean doctrine (δόγμα). Michael, possibly, draws here from Diogenes Laertius who says that ‘It seemed [ἐδόκει] to him [sc. Heraclitus] ... that all things are full of souls and demons’ (7.7–11 Marcovich = DK 22A 1.34–35).³⁶ This forces us to look closer at the reasons that may have made him compare the proposition that ‘even here, there are gods’ to ‘all is full of gods’. It is obvious from what is said before that Michael values the science of living things, for which the Heraclitean affirmation is evidence, in relation to soul, divinity and nature. Aristotle himself produces another version of the phrase ‘all is full of gods’ by writing ‘all is full of soul’.³⁷ In general, as to the distinction between a Platonic and an Aristotelian approach to the phrase, Michael stands closer to the positive position of Plato than to the critical one by Aristotle. Should we speak here of *panpsychism* or *pantheism*, as is usually maintained? G. S. Kirk in commenting on the phrase proposes the term ‘hylozoism’ on the condition that this applies to three different ideas: (a) the inference (conscious or not) that all things are in some way living things; (b) the conviction that the cosmos is permeated with life and that those of its parts which seem lifeless are in fact living; and (c) the tendency to face the world as a totality, whatever its constitution may be, i.e. as one living organism.³⁸ The philosophical qualification of Michael’s approach is the problem stemming from the fact that the phrase ‘all is full of gods’ is linked to the Heraclitean ‘even here there are gods’.³⁹

³⁶ See Arabatzis (2010: 387).

³⁷ *De gen. an.* III 762a21.

³⁸ G. S. Kirk in Kirk, Raven & Schofield (1983: 109).

³⁹ As to the meaning of the Heraclitus story, it has been proposed that it is an ironic expression used by Heraclitus against Hesiod or Pythagoras (see Robertson 1938: 10). Another scholar, L. Robert, refutes the irony hypothesis in order to point at what is most evident: the presence of the Heraclitean fire in the furnace that explains the presence of the divine (Robert 1965–66: 61–73). A very particular interpretation is that of Martin Heidegger (1978: 234) who relates the passage with the phrase ‘ethos is the demon to human’ (ἦθος ἀνθρώπου δαίμων: DK 22B 119). According to him, the term ‘ethos’ does not refer to a moral stand but to the residence of humans that is, as long as they are humans, the proximity to god. More precisely, the affirmation that ‘even here, there are gods’ signifies a critique of everyday life. Heraclitus’ visitors expect to see a ‘philosopher philosophizing’, but what they come up with is the disappointing image of a poor man who lives beside an oven because he feels cold. Heraclitus senses their disappointment and in order to prevent them from going away (because visitors like them if displeased leave immediately) says to them that ‘even here, there are gods’; the ‘here’ means the oven, but also the ‘home’ of the philosopher. This phrase, says Heidegger, considers the residence of the philosopher (‘ethos’) from a new angle: even in the shadow of the habitual we sense the gods. See also Gregoric

The intentionality theory mentioned before helps the comprehension of Michael's approach: in the Heraclitus example we see an opposition formed by the idea of a social or common intentionality based on perception that is overcome by a propositional intentionality: the common intentionality is that of the visitors, the propositional one is that of the saying. The laymen's perception of Heraclitus sitting beside the bread oven is characterized by an evaluation on the basis of pleasure and pain (the outcome of the visit being the possible satisfaction or displeasure of the visitors). Michael feels the need to insist upon the fact that we are talking about an oven (ἰπνός) and thus reinforces the sense of opposition between the divine nobility contained and the humble container. The problem is to understand exactly what, for Michael, are the poles of the opposition in the Heraclitean paradigm. In a passage from his commentary on the *Nicomachean Ethics*, the intellect and the science that are opposed to the animal condition (appetites and sensations) appear in Michael as stages in the ascent toward the divine and the transcendental in Neoplatonic, but also Christian terminology (cf. the expression 'immaculate light' = τὸ φῶς τὸ ἄχραντον):⁴⁰

*... escaping from the appetites of every kind and the consecutive sensations that deceive the intellect and introducing fantasies as introducing forming and dividing principles and something like an unsolvable multiplicity, rejecting the opinions as multiple and in themselves and for the other things, and mixed to the senses and the imagination (because every opinion acts together with irrational sensation and imagination), returning to science and intellect, and after that to the life of intellect and the simple intuition, and in the process receiving the illumination from the divine and filling inside with the immaculate light. What is the good by which the divine rewards those who engage themselves in the intellect that is relative to it?*⁴¹

Assuming that Michael is a Christian Platonist (in the sense of adhering to the views expressed in the above terminology), the phrases 'even here, there are gods' and 'all is full of gods' may be taken as an illustration of an 'Incarnation Predicament' (henceforth IP). By this last term I refer to the apology of the material or empirical world surrounding us made by the Christians, who see it as the product of the Creation, thus fighting against Manichaean dualism, which understands the world as the outcome of the fall and the reign of evil. The passage we are studying here thus possibly

(2001), which takes into (critical) account earlier interpretations, including Robertson's, Robert's and Heidegger's, and offers a cultural reading of the Heraclitus anecdote.

⁴⁰ See Symeon the New Theologian, *Hymn* 25, 149.

⁴¹ *In Eth. Nic. X*, 603.16–30. Michael draws here on Proclus; the citations from the Proclan text were noted by Carlos Steel and are indicated in the text with italics. See Steel (2002: 55–56).

marks Michael's disposition to relate the world even in its least appealing aspects with the divine. Consequently, the phrase 'all is full of gods' cannot refer either to *panpsychism* or to *pantheism* because something like that would invalidate the IP and especially its implications of the existence of a separate, non-corporeal Divine principle that ennobles the whole, whether material or not.⁴² From this point of view, Michael cannot subscribe to a speculative worldview where first philosophy plays the part of theology; this role is solely reserved for Christian theology and thus Michael seems to inherit Neoplatonic intellectualism, but not Neoplatonic metaphysics. This disposition allows him to value the exterior world, notwithstanding its dis-comforting sides, as part of Creation—in accordance with the IP—and to conceive simultaneously of what I will describe later as scientific intentionality towards the world. The idea that the Heraclitus example concerns the distinction between divine nobility and the humble material world is reinforced by the fact that the 'foetal membranes that cover the baby when it comes out of its mother's womb' and the other organic parts to which Michael refers are used by the Neoplatonists and notably Porphyry as a critique of the Christian belief that God was born from a woman's womb.⁴³

Let us summarize the insight offered by the implications of the IP. The two poles of the dichotomy that the IP seems to transcend are the following: the

⁴² There is a rejection of divine corporeality in Michael due most probably to his Christian culture. Nussbaum thinks that Michael's expression 'if there were, among beings and having reality, some powers greater than the powers of heaven and earth, they would move tomorrow or some time' from his commentary on *De motu animalium* (110.14–16: trans. Preus) is a real contribution to the comprehension of Aristotle's expression 'if there are superior motions, these will be dissolved by one another' from *De motu animalium* 699b25–26 (trans. A. S. L. Farquharson), and she thinks that the Byzantine scholiast's hypothesis about a moving principle that, if it could exercise a force greater than the forces of earth and heaven, would do so and destroy the world, is correct. Nevertheless, Nussbaum believes that Michael's interpretation of Aristotle's moving principle as an interaction of forces and bodies is erroneous. For Aristotle, Nussbaum says, the moving principle with a force capable of moving and eventually destroying the world must be also a body—a sixth body different from the five physical ones. (The reason is that Aristotle continues by saying that the force of the aforesaid body cannot be infinite because there cannot be an infinite body: 'for they cannot be infinite because not even body can be infinite'; see 699b27–28). Thus, Michael's interpretation, Nussbaum says, is half right—as long as it points to one moving principle for Aristotle's passage—and half erroneous—for not attributing to this moving principle the quality of being a body (see Nussbaum 1978: 317–18; for a different view, see Preus 1981, 75). For a Christian or someone brought up in a Christian culture as Michael was, this interpretation stands midway between Aristotle and Christianity.

⁴³ See von Harnack (1916: fr. 77).

noble intellect and the humble material world. The problem would be to state how this transcendence works. It seems that we have here a form of syllogism where the IP is elevated to the status of the major term that correlates logically the animals' and plants' appeal to humans with the surpassing of human aversion toward the organic parts of bodies and the study of living things as a noble scientific activity.

Thus, the argument of Michael in this perspective may be formulated in the following way: (a3) The IP states that the world as God's creation is invariably noble; (b3) animals and plants are parts of the world; (c3) humans must study animals and plants as parts of God's invariably noble creation.

On this view, the basic argument of the call to the study of living things would be part of a more extensive position that schematically states: 'Look at the wonders that God created in the natural world.'

Nevertheless, this view is a problematic one and cannot be defended conclusively. First of all, the Christian perception of the material world is not governed in its totality by the good will inherent in the IP. This good will was made act through incarnation only once as proof of the Lord's immense love for humankind and it does not abolish the divinity's otherness from the material world. Another problem is that of the meaning of the aversion experienced in seeing certain organic parts of the natural world. Michael does not seem to deny the well-foundedness of this feeling that he uses as an argument in order to dissociate natural science from natural pleasure. This attitude may also mark a Christian's ambivalence regarding the valuation of the natural world.⁴⁴

Pleasure, happiness and the living things

Up to this point, we have distinguished two major tendencies in Michael's views concerning the study of animals and plants: (c1) there is an appeal to turn our attention towards organic material (animals and plants),⁴⁵ notwith-

⁴⁴ See Goldman (1975). Goldman is criticizing Kojève's position that modern science has its origins in the doctrine of the Incarnation of God as an apology of the material world (see Kojève 1964).

⁴⁵ The nature of the plants may also be aversion-provoking in Aristotle: see *Eth. Nic.* X 6, 1176a34–45; also, there are forms of life that are indeterminately animals or plants, like the sessile sponges, the anthozoans and ascidians that are distinguished for their resemblance to plants (*De part. an.* 681a10–b9); the repugnance of the parts of the plants may not refer to vision, but to other senses like taste or smell; see *On Sense and the Sensibles* 5; see also Theophrastus, *History of Plants* 10.

standing the aversion that this may provoke; and (c2) humans, who are part of the material world, should study animals and plants.

According to Aristotle, the aversion that may be produced during the scientific work is overcome by the natural pleasure of knowledge; this is not the view of Michael, for whom the aversion provoked by some organic parts cannot be outweighed by any scientific pleasure. To explain Michael's thesis, a third proposition, based on the IP, was advanced, stating: (c3) humans must study animals and plants as part of God's invariably noble creation.

(c3) could satisfactorily fill the gap between (c1) and (c2) but was seen above to be a problematic view. In fact, the world is not invariably noble in the text of Michael of Ephesus. The celestial world is said to be noble (τίμια), but the world of living things other than humans is said to possess sublimity (τὸ θαυμάσιον). In the search for an understanding of the difference, we may look to Aristotle, who makes various uses of the term θαυμάσιος, first in relation to animals: 'The phenomena of the generation in regard to the mouse are the most astonishing (θαυμασιωτάτη)' (*Hist. an.* 580b10, trans. D'A. W. Thompson), and also in relation to a certain kind of wisdom: 'Whence even the lover of myth is in a sense a lover of wisdom, for myth is composed of wonders (θαυμάσια)' (*Metaph.* I, 982b18–19, trans. W. D. Ross). In the *De anima*, the θαυμάσιον is said to be constitutive of the value of knowledge and scientific research: 'Holding as we do that, while knowledge of any kind is a thing to be honoured and prized, one kind of it may, either by reason of its greater exactness or of a higher dignity and greater wonderfulness (θαυμασιωτέρων) in its objects, be more honourable and precious than another, on both accounts we should naturally be led to place in the front rank the study of the soul' (402a1–4, trans. J. A. Smith). And again, in the *De generatione animalium* 731a33–b2, we see the term related to the subject of human and animal knowledge: '[The animals] have sense perception, and this is a kind of knowledge; if we consider the value (τὸ τίμιον καὶ ἄτιμον) of this we find that it is of great importance compared with the class of lifeless objects, but of little compared with the use of intellect. For against the latter the mere participation in touch and taste seems to be practically nothing, but beside plants and stones it seems most excellent (θαυμάσιον)' (trans. A. Platt).

In Michael of Ephesus, there are two uses of the term, first in his commentary on Book V of the *Nicomachean Ethics*, where a human virtue appears to surpass in sublimity a star like Venus: 'Justice appears to be excellent and more wonderful (θαυμασιωτέρα) than the star of Venus itself' (*In Eth. Nic.*

V, 8.3–4). In his commentary on the *Sophistici Elenchi* (2.20–22), Michael refers to the Platonic *Euthydemus* where ‘Socrates says, speaking to Crito, that sophistry is wonderful (θαυμάσιον)’. In fact, we find three occurrences of the term in *Euthydemus*, when Plato speaks of ‘wonderful speeches’ (283a7), ‘wonderful wisdom’ (288b6), and finally the ‘wonderful Sophists’ (305b4), as Michael says. I translated θαυμάσιον here as ‘sublimity’ (and not as ‘wonderful’, ‘excellent’, or even ‘astonishing’ as others translators do) because I wish to suggest the double use made by Michael of the term as a real or phenomenal excellence as well as an ironic one; the word ‘sublimity’ can convey better the double, real and phenomenal feature.⁴⁶ The problem is how to relate the noble-humble division of a world that is everywhere equally worthy of knowledge to the distinction between pleasure and pain (aversion). For this, I will quote a crucial passage from Michael concerning the difference between humans and animals with regard to happiness:

He [sc. Aristotle] says, once the omissions and that which must be supplied from elsewhere are brought together, that in accordance with the assumptions of the Epicurean and later Stoic philosophers concerning happiness, one can attribute a share of happiness even to the non-rational animals, while according to myself and Plato and others who along with us would place happiness in the intellectual life, it is impossible for the non-rational animals to be happy in that way⁴⁷

So it appears that happiness cannot be granted to animals and, by the same token, to plants. Here Michael is setting himself against Aristotle, the Epicureans (a logical opposition for a Byzantine Christian) and the later Stoa. What marks a difference in this case is the theory of happiness in the later Stoa that postulates common trends in Aristotle, the Epicureans and Stoicism. In contrast to the later Stoa, Michael opposes the theory that there is a general pleasure according to nature and, similarly, he distances himself from Aristotelian ethics where natural pleasure plays a constitutive

⁴⁶ In Christian literature also, the term has a dominant positive meaning (see for example Gregory of Nyssa, *Hom. VIII in Cant.*, in Migne, *PG* 44: col. 948C), unless it refers to heresy (Hippolytus, *Haer.*, in Migne, *PG* 16: col. 3139B).

⁴⁷ *In Eth. Nic. X*, 598.19–24 (quoted in Praechter [1990: 40]): λέγει δὲ ὡς συλλεξαμένους τὰ παραλελειμμένα καὶ ὧν προσυπακούειν ἔξωθεν χρή, ὅτι κατὰ μὲν τὰς τῶν ἄλλων φιλοσόφων Ἐπικουρείων τε καὶ τῶν ὕστερον Στωικῶν περὶ εὐδαιμονίας ὑπολήψεις δύναται τις εὐδαιμονίαν μεταδιδόναι καὶ τοῖς ἀλόγοις ζώοις, κατ’ ἐμὲ δὲ καὶ Πλάτωνα καὶ τοὺς ἄλλους ὅσοι τὴν εὐδαιμονίαν ἐν νοερᾷ ζωῇ ἰστώμεν, ἀδύνατον κατὰ ταύτην εὐδαιμονεῖν τὰ ἄλογα τῶν ζώων

role.⁴⁸ Instead, the early Stoics, to whom Michael seems to align himself, or at least whose contribution he seems to acknowledge, declared that living according to nature is living according to reason and that pleasure is only accessory to living things.⁴⁹ Compare this view with Aristotle's following passage from the encomium of natural science in the *Parts of Animals*: 'for if some have no graces to charm the sense, yet nature, which fashioned them, gives amazing pleasure in their study to all who can trace links of causation, and are inclined to philosophy' (645a8–11). It is a thesis to which Michael does not subscribe, since for him simple nature may never be a source of pleasure, but only the pure intellect can be such and, in any case, if bodily pleasures are embraced as goods, they will obscure the real (intellectual) pleasures.⁵⁰ The difficulty that consists in the fact that pleasure cannot be a criterion of happiness was already brought up by Cicero who reproduced some relevant Stoic ideas:

But when you try to prove the Wise Man happy on the ground that he enjoys the greatest mental pleasures, and that these are infinitely greater than bodily pleasures, you do not see the difficulty that meets you. For it follows that mental pains which he experiences will also be infinitely greater than the bodily ones. Hence he whom you maintain to be always happy would inevitably be sometimes miserable; nor in fact will you ever prove him to be invariably happy, as long as you make pleasure and pain the sole standard (trans. H. Rackham).⁵¹

The relation between natural and bodily pleasures is for Michael quite different from what this is for Aristotle and I will try to show next in which way the difference is established. Michael states that:

Every mind is searching for its proper good and has the intuition of it or dreams about it and submits to the animal and oppressive pleasures, which are not properly pleasures because of their evil lessons and the necessary and consequent ignorance of the real pleasures. Because the judging mind is overtaken by darkness about the real pleasures, which are not like that ... (*In Eth. Nic. X*, 538.12–16).

⁴⁸ Cf. Panaetius' notion of happiness 'in accordance to nature' (apud Stobaeum, 2.7 = Panaetius fr. 109 van Straaten). See Sorabji (1993: 139). As to whether pleasure exists according to nature there was already a controversy in antiquity; see Sextus Empiricus, *Adv. Math.* XI, 73. See Haynes (1962: 414).

⁴⁹ Zeno in Diogenes Laertius VII 85.

⁵⁰ For Michael's theory of happiness, see Ierodiakonou (2009: 185–201); Donato (2006: 180–84).

⁵¹ Cicero, *De finibus* II 33.108: 'sed dum efficere vultis beatum sapientem cum maximas animo voluptates percipiat omnibusque partibus maiores quam corpore, quid occurrat non videtis. Animi enim dolores quoque percipiet omnibus partibus maiores quam corporis. Ita miser sit aliquando necesse est is quem vos beatum semper vultis esse; nec vero id dum omnia ad voluptatem doloremque referetis efficietis umquam.'

A distinction between animal pleasures and real pleasures contributes to the understanding of the exhortation to study living things. The absence of bodily pleasure in the perception of the parts of animals may be a sign of true intellectual activity. But this cannot really cover the totality of Michael's argument. The distinction between real pleasure and bodily pleasure will not explain much unless the broader theoretical frame of which it is extracted is further clarified.

Pleasure is not, in any case, really Michael's argument. What he says is that absence of pleasure or aversion is an obstacle to the appreciation of the value of natural science since it may cause suspicion as to its nobility and make it appear as ἄτιμον. It is not that Michael considers all the living things abhorrent, since the childish aversion concerns the most disgusting of them. To these latter are assimilated the parts of the human body in order to prove the human affiliation to the natural world. But what directs humans to natural science is the finality of reaching the realm of the good that should bring with it intellectual pleasure. But if this is a finality, it is not inherent in scientific activity, as it might have been for Aristotle who grounds this activity on an ontological desire for knowledge. In late antiquity, the philosophical theorization of pleasure owes much to Plato's *Philebus* where the ideas of pleasure as a mixed good as well as a return to the natural condition (but not the natural condition in itself) were of prime importance. Michael of Ephesus seems to combine the Plotinian and Proclan dualism that reserves all passions for the body with the later Neoplatonists' claim that passions can reach the soul and change it in substance (something that was unacceptable for Plotinus). Furthermore, Michael seems here to especially object to Damascius' theory of pleasure exposed in his commentary on *Philebus*.⁵² Damascius is in fact presenting a theory of pleasure that combines Aristotelian, Epicurean and late Stoic elements.⁵³ On the basis of the attribution of cognition to perception that extends to all living things, he tries to make pleasure not only a characteristic of the movement towards the natural condition, but a characteristic of the natural condition itself. To this, Michael, who is particularly reluctant to accept the analogy between the two term pairs pleasure-cognition and perception-cognition, is strongly opposed. For Michael, the movement to the natural condition is indistinctively the cause of pleasure or pain, while the intellectual condition that is seen as the

⁵² Westerink (1959). It must be noted that in the manuscript tradition, the commentaries on the *Phaedo* and those on the *Philebus* are placed together. Michael refers to the *Philebus* in his commentaries (see *In Eth. Nic. X*, 536.15; 542.22; 542.29; 542.32).

⁵³ Riel (2000: 134–76).

cause of real pleasures must first achieve a state of neutrality towards the natural condition.

In Christian thought we see the idea of pleasure associated with a false science, as in the case of the art of divinization. Thus, in Gregory of Nyssa's *Contra fatum*, pleasure is in fact a major constituent of the divinatory arts because that is what makes such a false science plausible to humans who desire to know the future. Organic parts play a role in the practice of those arts, as for instance in the inspection of livers in order to predict the future and thus, says Gregory, pleasure gives to the evil deed the form of good, just as the taste of honey can cover what is distasteful.⁵⁴ It is not openly stated that true science may have to do with a direct overcoming of aversion, but since false science has to hide the unpleasant aspects of its practices and objectives under a pleasurable appearance (or in the prospect of bodily pleasure), such a direct overcoming may be implied by Gregory of Nyssa. The apology of the material world through the IP and the advancement of a disinterested regard (without the dominant search for pleasure) toward the surrounding world allow the formation of some sort of objectivity. Such a perception of the epistemological past would mean, regarding the Middle Ages in general and the Byzantine Middle Ages in particular, something more than the search for 'psychological anachronisms';⁵⁵ it would in fact be something like a research programme for the origins of scientific psychology.

⁵⁴ See *Contra fatum* 59 McDonough: 'We can recognize the divine nature and its attributes by all those things which are opposite to it, for example, death instead of life, deceit instead of truth and every type of evil inimical to man. Anyone who embraces these becomes an abomination. Persons who often commit evil deeds offer a deadly cure since it is disguised with honey which cannot be tasted. Similarly, that corruptible nature within the soul seduces a person by assuming a good form and veils deception under the guise of a cure. People rush after this deadly poison thinking it to be good while it contains nothing beneficial. Thus whenever we encounter anyone with the pretense of knowing the future through deception which is controlled by demons, for example, through divinization, augury, omens, oracles about the dead and genealogies, each one is different and predicts the future in dissimilar ways. Therefore inspecting a liver or observing birds in flight to foresee the future do not promise their outcome by fate's compulsion. We claim that all these examples have one cause and assume one form (I mean demonic deception) since a prediction does not come true at a given time if indeed it does occur.'

⁵⁵ See Beaujouan (1997: 23–30).

*Intentionality and propositional content in
Michael of Ephesus' philosophy of living things*

To summarize Michael's position we should say that for him aversion or absence of pleasure may hinder scientific activity and consequently condemn it as ἄτιμον. Thus, pleasure and pain are situated on a more basic level of the human being (since the feeling of disgust appears to be somehow identical to childish aversion). We should compare here the impossibility that bodily pleasure constitutes a criterion with the declared need, according to Michael of Ephesus, for a prospective natural scientist to face the organic parts of living bodies. Also, we must not forget that the appeal for the study of living things is addressed to every human and not only to the scientists. This reinforces the idea that the problem is treated here on the ontological, rather than the epistemological level. The question of material bodies, the perception of them with pain and pleasure, can be attached to the following passage from the commentary on Books IX–X of the *Nicomachean Ethics*:⁵⁶ here Michael makes use of the significant term σωματοειδής, that is, bodily, material, corporeal:

the visual perception of the forms is a perception of them without the matter, as Aristotle has shown in the second book of *De anima* ..., without the underlying matter. The hearing and the smell are more corporeal (σωματοειδεῖς) and they perceive the sensed objects more passively together with their matter (569.8–14).

De anima II is an important work with regard to intentionality and its relation to physicalism since it proclaims that every sense-perception is of a sensible form (424a17–21). Thus, pure form guarantees intentionality but, at the same time, intentionality requires a physiological change. The sense organs transform the real objects into intentional objects and yet the intentional objects are in the sphere of the intellect.⁵⁷ Although the animals in Michael may be considered as bodies without reason, in no case can they be thought as σωματοειδῆ; this last term refers explicitly to a hierarchy of human senses and to human perception, which have meaning only for rational beings like humans.

There is only one occurrence of σωματοειδής in the Aristotelian corpus, in *Problems* 24, 936b35, where we read: 'but substances which have body

⁵⁶ For the close relation between Michael's scholia to the *De partibus animalium* and the *Nicomachean Ethics*, see Arabatzis (2009: 170–71), where it is shown that both commentaries belong to the later phase of Michael's scholastic activity.

⁵⁷ Perler (2003: 20–21).

in them, like thick soups and silver, since, owing to their weight, they contain much corporeal matter (σωματοειδές) and offer resistance, because they are subjected to violent force as the heat tries to make its way out, form bubbles wherever the heat prevails' (trans. E. S. Forster). Σωματοειδής, as Michael uses it, stands rather closer to Plato's *Phaedo*: 'Because each pleasure or pain nails it as with a nail to the body and rivets it on and makes it corporeal (σωματοειδῆ), so that it fancies the things are true which the body says are true' (83d, trans. H. N. Fowler); in *Phaedo* again, at another point, Plato says: 'so that it thought nothing was true except the corporeal (σωματοειδές), which one can touch and see and drink and eat and employ in the pleasures of love, and if it is accustomed to hate and fear and avoid that which is shadowy and invisible to the eyes but is intelligible and tangible to philosophy' (81b, trans. H. N. Fowler). Michael Psellos also uses the term in relation to demons and to humans after the fall (see *Philosophica Minora* II 37.11–13 and *Theologica* I 30, 127–30). It is more likely that Michael did not borrow the term σωματοειδής from Plato, Psellos or from his regular source Proclus, who uses it quite frequently, as in *Inst. theol.* 197.5–7. The closest parallel to Michael's notion of the term is to be found in Damascius:

The 'body-like' [σωματοειδές] is different from the body: it is an affect of the soul, brought about in it by the body. Body-like is also the 'phantom' formed by such a kind of life-force and a more rarefied bodily substance, of which Plato says that it is 'weighed down' and that it is 'seen in the neighbourhood of graves'; hence it is said to 'accompany' the soul. It is 'produced by those souls' that are still tied to the visible; this is why they can be seen, through participation in the visible or through affinity with it.⁵⁸

The logical opposition of σωματοειδής to the nobility of scientific activity reminds us of the discussion in Plato's *Parmenides* about the existence or not of the ideas of the humblest, ignoble things (ἀτιμότατον) (130c ff.). To the problem that arises there, Michael would answer in the most unequivocal way: the τιμώτερον (nobility) of the study of living things is based on the degree of the τιμώτερον of human intentional acts (meaning the acts of a higher intentionality).⁵⁹

⁵⁸ Damascius, *In Philebum* §352 Westerink.

⁵⁹ The purity of the intellect goes together with the purity of the eye and the whole constitutes a metaphor for the superiority of contemplative happiness: 'sight is superior to touch in purity, and hearing and smell to taste; the pleasures, therefore, are similarly superior, and those of thought superior to these, and within each of the two kinds some are superior to others' (*Eth. Nic.* 1176a1–3, trans. W. D. Ross revised by J. O. Urmson). To this passage responds Michael's *In Eth. Nic. X*, 569.8–14, quoted earlier, as well as the metaphor of the 'eye' of prudence from *In Eth. Nic. X*, 609.6–10. For the latter, see Arabatzis (2009: 165).

While still on the subject of the term *σωματοειδής* and its uses, we should add to our consideration of the obvious Platonic heritage⁶⁰ further investigation of the Neoplatonic one. It is probable that the distinguishing character of the *σωματοειδής* in Michael comes from its opposition to the notion of *λογοειδής*. Simplicius (or Priscian) quotes Iamblichus approvingly for saying that humans have perception in a different sense from animals: human perception has a rational form (*λογοειδής*), whereas animal perception is body-centered. Animal perception can recognize (*γνώσις*) that the seen thing is a man, but it cannot say whether this recognition (*γνώσις* or *κρίσις*) is true or false. Such an appreciation would be self-reflection (*ἐπιστροφή*), which is impossible for the senses of living things such as animals and plants, which cannot get away from the body.⁶¹ Thus, *σωματοειδής* and *λογοειδής* refer to states of mind or, for Michael, intentional states of mind.

There is in the epistemology of Michael of Ephesus, in his commentary on *Parts of Animals* I (1.3–2.10), a theory or proto-theory of intentionality.⁶² Michael's intentionality theory is suggested there by the terms *σκοπεῖν* and *θεωρεῖν*; the first would be a pre-reflexive intentionality, the one that probably causes pleasure and pain; the second is the one that produces the

⁶⁰ The allegiance to Plato is significant in relation to what can be considered as the 'Christian Platonism' of Michael of Ephesus. We can witness it in his commentary on Democritus' positions as transmitted by Aristotle in *Parts of Animals*, where, according to A. P. D. Mourelatos, there is a 'non-reductivist gloss' on Democritus B 165. According to Aristotle, Democritus approached natural science as though it were about the material cause and he neglected the final cause or the formal cause; and Michael specifies: 'It is evident to everyone what sort of thing man and each of the animals is in terms of shape and color; it is what they are in terms of matter that is non-evident. But if this is so, then our inquiry into it ought to be concerned with the non-evident, not with what is most evident' (*In De part. an.* 5.36-6.3, trans. Mourelatos 2003: 51). Mourelatos notes that, 'in all likelihood, Michael knows nothing more about Democritus' anthropology than what he gleans from the Aristotle's passage he is paraphrasing. Still, could Michael's gloss serve to inspire a viable reading of B 165? The message of the saying 'Man is what we all know' might have been this: ignore or set aside what is manifest; go beyond it; search rather for the underlying realities ..., which are hidden.' Michael's Platonism signifies the impulse to see beyond evidence (*ibid.* 52). According to my analysis here, Michael persistently insists on the superior nobility of humans over the animals, similar to God's nobility. This discussion points strongly to Michael's distinctive dualism.

⁶¹ *In De an.* 173.1–7; 187.35–39; 210.15–211.13; 290.4–8. See Sorabji (1993: 49). This position allows the ascription of beliefs to animals. See Dennett (1976: 181–87); Sorabji (1993: 28). For the escape from the body, see Plotinus, *Enn.* 2.3, 9.20–23.

⁶² See Arabatzis (2006: 318–22; 2009: 179–84).

objects of theoretical, scientific activity.⁶³ The appeal to humans to study living things addresses the pre-scientific intentionality which would be the ontological structure that we need in order to ground natural science. This first intentionality leads to the second one and to the intellectual activity of science. In fact the distinction between the two intentionalities cannot be definitive and the pre-scientific intentionality is rather a proto-scientific than a non-scientific one. The error would be to make intentionality pass for sensation; because of τὸ σωματοειδές, i.e. the corporeal reasoning, humans are capable of missing science. If we return to the paradigm of the animals and plants saying ‘we are noble objects of science’, we may say that the image of the speaking animals and plants is deceptive, but the deception is reversed because of the propositional content of the intentional act. In Michael’s view, intentional acts without propositional content are not as epistemologically satisfying as the ones endowed with propositional content. This is the case with the view of organic parts that causes distress to the general viewer, where the ill feeling is produced by non-propositional intentionality paired with an axiological presupposition based on the pleasure-pain distinction. Part of what we see in Michael of Ephesus is classical Greek intellectualism stemming from the superiority of *Logos*. Another part is a Christian attitude that promotes physical realism. Michael of Ephesus appears to be part of a long philosophical tradition concerning the difficult relations between intentionality and the natural world.

⁶³ With regard to the sources for Michael’s theory of intentionality, besides what has already been said, Aristotle is not the prime candidate since the question of intentional acts in his writings is confined between physicalism and *phantasia* (see Caston 2001; Sorabji 2001*a*; Rapp 2001; Weidemann 2001; see also Arabatzis 2006: 318–22). As for the Neoplatonic sources, Sorabji claims that no intentional objects can be acknowledged in intellectual thought according to the Neoplatonists (Sorabji 2001*b*). D. J. O’Meara supports the thesis that intentional objects exist in discursive thought according to later Neoplatonism (O’Meara 2001). A number of the notions O’Meara examines (πρᾶγμα, ἀρχή, ἔξις, geometry) are to be found in Michael’s *In De part. an.* 1.3–2.10. The mechanism of intentionality is described by O’Meara in the following terms: ‘the correspondence between the ideal order of metaphysical discursive thought and the real order of transcendent objects allows us to see the suggestion that discursive concepts are images of transcendent objects in a new light: it is not the case that discursive thought looks at these objects as if they were images, but rather that in developing these concepts, discursive thought produces what are in a sense images of transcendent objects.’ The case is illustrated by a passage from Philoponus, *In De an.* III (Latin version) 88.37–49 (O’Meara 2001: 123).

Bibliography

- Annas, J. & Barnes, J. (1985) *The Modes of Scepticism: Ancient Texts and Modern Interpretations*. Cambridge.
- Arabatzis, G. (2006) *Παιδεία και Επιστήμη στον Μιχαήλ Εφέσιο*. Εις περί ζώων μορίων *A 1,3 – 2,10*. Athens.
- Arabatzis, G. (2009) ‘Michael of Ephesus on the empirical man, the scientist and the educated man (in *EN X* and in *PA I*)’, in C. Barber & D. Jenkins (eds), (2009): 163–84.
- Arabatzis, G. (2010) ‘Ο Διογένης Λαέρτιος στο Βυζάντιο’, *Φιλοσοφία* 40: 377–90.
- Barber, C. & Jenkins, D. (eds) (2009) *Medieval Greek Commentaries on the Nicomachean Ethics*. Leiden & Boston.
- Barnes, J. (ed.) (1984) *The Complete Works of Aristotle: The Revised Oxford Translation*. Princeton, NJ.
- Beaujouan, G. (1997) ‘L’histoire des sciences est-elle, pour le Moyen Âge, porteuse d’anachronismes psychologiques?’, *Bulletin de philosophie médiévale* 39: 23–30.
- Browning, R. (1962) ‘An Unpublished Funeral Oration on Anna Comnena’, in *Proceedings of the Cambridge Philological Society* 188: 1–12. Reprinted in R. Browning (1977) *Studies on Byzantine History, Literature and Education* (London) ch. 7, and in R. Sorabji (ed.) (1990): 393–406.
- Caston, V. (2001) ‘Connecting traditions: Augustine and the Greeks on intentionality’, in D. Perler (ed.) (2001): 23–48.
- Chiesara, M.-L. (ed.) (2001) *Aristocles of Messene: Testimonia and Fragments*. Oxford.
- Chroust, A. H. (1963) ‘The first thirty years of modern Aristotelian scholarship (1912–1942)’, *Classica et Mediaevalia* 24: 27–57.
- Dennett, D. (1976) ‘Conditions of personhood’, in A. Rorty (ed.), *The Identities of Persons* (Berkeley & Los Angeles): 181–87.
- Donato, A. (2006) ‘Aquinas’ theory of happiness and its Greek, Byzantine, Latin and Arabic sources’, *Al-Masaq* 18/2: 161–89.
- Düring, I. (1943) *Aristotle’s De Partibus Animalium: Critical and Literary Commentaries*. Göteborg.
- Düring, I. (1961) *Aristotle’s Protrepticus: An Attempt at Reconstruction*. Göteborg.
- Frankopan, P. (2009) ‘The literary, cultural and political context for the twelfth-century commentary on the *Nicomachean Ethics*’, in C. Barber & D. Jenkins (eds), (2009): 45–62.
- Gilhus, I. S. (2006) *Animals, Gods and Humans: Changing Attitudes to Animals in Greek, Roman and Early Christian Ideas*. London.
- Gregoric, P. (2001) ‘The Heraclitus anecdote’, *Ancient Philosophy* 21: 73–85.
- Goldman, S. L. (1975) ‘Alexander Kojève on the origin of modern science: Sociological modelling gone awry’, *Studies in the History and Philosophy of Science* 6: 113–24.
- von Harnack, A. (1916) *Porphyrius’ Gegen die Christen*. Berlin.
- Hayduck, M. (1904) ‘Michaelis Ephesii in de Partibus Animalium, I’, in *CAG* XXII/2: 1–24. Berlin.
- Haynes, R. P. (1962) ‘The theory of pleasure of the old Stoa’, *American Journal of Philology* 83: 412–19.
- Heidegger, M. (1978) ‘Letter on Humanism’, in idem, *Basic Writings* (New York): 189–242.
- Hunger, H. (1978) *Die hochsprachliche profane Literatur der Byzantiner*. Munich.

- Ierodiakonou, K. (2009) 'Some observations on Michael of Ephesus' comments on *Nicomachean Ethics X*', in C. Barber & D. Jenkins (eds), (2009): 185–201.
- Jaeger, W. (1934) *Aristotle: Fundamentals of the History of His Development*. Oxford.
- Kirk, G. S., Raven, J. E. & Schofield, M. (1983) *The Presocratic Philosophers*. Cambridge.
- Kojève, A. (1964) 'L'origine chrétienne de la science moderne', in *L'aventure de l'esprit: Mélanges Alexandre Koyré*, vol. 2 (Paris): 295–306.
- Krumbacher, K. (1897) *Geschichte der byzantinischen Litteratur*, vol. 2. Munich.
- Lauxtermann, M. D. (2003) *Byzantine Poetry from Pisides to Geometres*. Vienna.
- Le Blond, J.-M. (1945) *Aristote: Philosophie de la vie. Le livre premier du traité sur les Parties des Animaux*. Paris.
- Lennox, J. G. (1994) 'The disappearance of Aristotle's biology: A hellenistic mystery', in T. D. Barnes (ed.), *The Sciences in Greco-Roman Society* (Edmonton): 7–24.
- McDonough, J. (ed.) (1987) *Gregory of Nyssa: Contra Fatum*, in *Gregorius Nyssensis Opera*, vol. III/2 (Leiden): 31–63.
- Mourelatos, A. P. D. (2003) 'Democritus on the distinction between universals and particulars', in A. Bähli & K. Petrus (eds), *Monism* (Frankfurt): 43–56.
- Mulligan, K. (2003) 'Searle, Derrida and the ends of Phenomenology', in B. Smith (ed.), *The Cambridge Companion to Searle* (Cambridge): 261–86.
- Newmyer, S. T. (2006) *Animals, Rights and Reason in Plutarch and Modern Ethics*. London.
- Nussbaum, M. C. (1978) *Aristotle's De Motu Animalium*. Princeton.
- O'Meara, D. (2001) 'Intentional objects in later Neoplatonism', in D. Perler (ed.) (2001): 115–25.
- Pellegrin, P. (1990) *Aristote: Les Politiques*. Paris.
- Pellegrin, P. (1995) 'Introduction', in *Aristote: Parties des animaux, Livre I*, traduction de J.-M. Le Blond, introduction et mises à jour de P. Pellegrin (Paris): 5–33.
- Perler, D. (2003) *Théories de l'intentionnalité au moyen âge*. Paris.
- Perler, D. (ed.) (2001) *Ancient and Medieval Theories of Intentionality*. Leiden, Boston & Cologne.
- Praechter, K. (1990) Review of the *Commentaria in Aristotelem Graeca*, in R. Sorabji (ed.) (1990): 31–54.
- Preus, A. (1981) *On the Movement and Progression of Animals: Aristotle and Michael of Ephesus*. New York.
- Rapp, C. (2001) 'Intentionalität und Phantasia bei Aristoteles', in D. Perler (ed.) (2001): 63–96.
- van Riel, G. (2000) *Pleasure and the Good Life: Plato, Aristotle, and the Neoplatonists*. Leiden, Boston & Cologne.
- Robert, L. (1965–66) 'Héraclite à son fourneau. Un mot d'Héraclite dans Aristote («Parties des Animaux», 645a)', *Annuaire de l'École Pratique des Hautes Études* 98: 61–73.
- Robertson, D. S. (1938) 'On the story of Heraclitus told by Aristote in *De part. Animal.* 645a15–23', *Proceedings of the Cambridge Philological Society* 169: 10.
- Ross, W. D. (1975) 'The development of Aristotle's thought', in J. Barnes, M. Schofield & R. Sorabji (eds), *Articles on Aristotle. I. Science* (London): 1–13.
- Shields, C. (2007) *Aristotle*. London & New York.
- Sorabji, R. (ed.) (1990) *Aristotle Transformed: The Ancient Commentators and Their Influence*. London.
- Sorabji, R. (1993) *Animal Minds and Human Morals: The Origins of the Western Debate*. Ithaca, NY.
- Sorabji, R. (2001a) 'Aristotle on sensory process and intentionality: a reply to Myles Burnyeat', in D. Perler (ed.) (2001): 49–61.

- Sorabji, R. (2001*b*) 'Why the Neoplatonists did not have intentional objects of intellection', in D. Perler (ed.) (2001): 105–14.
- Steel, C. (1999) 'Animaux de la Bible et animaux d'Aristote', in C. Steel, G. Guldentops & P. Beullens (eds), *Aristotle's Animals in the Middle Ages and the Renaissance* (Leuven): 11–30.
- Steel, C. (2002) 'Neoplatonic sources in the commentaries on the *Nicomachean Ethics* by Eustratius and Michael of Ephesus', *Bulletin de philosophie médiévale* 44: 51–57.
- Théodoridès, J. (1977) *Les sciences biologiques et médicales à Byzance*. Paris.
- Vaihinger, H. (2007 [1911]) *Philosophie des Als Ob*. Saarbrücken.
- Vogel, K. (1967) 'Byzantine science', in J. M. Hussey (ed.), *The Cambridge Medieval History*, vol. IV/2 (Cambridge): 264–305; 452–70.
- Weidemann, H. (2001) 'War Aristoteles ein Repräsentationalist?', in D. Perler (ed.) (2001): 97–104.
- Westerink, L. G. (1977) *The Greek Commentaries on Plato's Phaedo*, vol. II. *Damascius*. Amsterdam, Oxford & New York.
- Westerink, L. G. (ed.) (1959) *Damascius: Lectures on the Philebus, Wrongly Attributed to Olympiodorus*. Amsterdam.