

Marek Gensler

University of Łódź

Monika Mansfeld

University of Łódź

THE PHYSIOLOGY OF DIVINATION IN WALTER BURLEY*

Walter Burley, an English philosopher and theologian active in the first half of the fourteenth century, was the author of a commentary on Aristotle's set of three treatises devoted to the problems of sleep and dreaming: *De somno*, *De insomniis*, and *De divinatione per somnum*.¹ Setting to his work of commenting on the set, Walter Burley already had at his disposal the works of his predecessors, Albert the Great, the most important Latin authority on the subject, and Simon of Faversham, a thirteenth century master of Merton college. The commentaries are most probably the effect of teaching during his regency at the Faculty of Arts in Oxford which began in 1301, when he was obliged to

*This paper is a result of research financed by a grant of the Polish National Science Centre (NCN) UMO-2016/23/B/HS1/00430.

¹The commentary has already been edited semi-critically. Cf. CH. THOMSEN-THÖRNQVIST, "Walter Burley's Expositio on Aristotle's Treatises on Sleep and Dreaming: An Edition," *Cahiers de L'Institut du Moyen-Âge Grec et Latin*, vol. 83 (2014), p. 379–515. In this text, we quote Burley after our own critical edition. It has been prepared on the basis of all existing manuscripts: Oxford, All Souls, cod. 86 (A), f. 212ra–222va; Oxford, Magdalen College, cod. 146 (M2), f. 83ra–95ra; Oxford, Oriel, cod. 12 (O), f. 69va–86vb; Vatican, Bibliotheca Vaticana, Vat. lat. 2151 (V), f. 88va–108vb. We have selected Vatican, vat. lat. 2151 (not included in Thörnqvist) as the base text for our edition. Because our edition is not published yet, we identify quotations by means of reference to internal divisions of the text. The Thomsen-Thörnqvist edition has been provided with a comprehensive introduction, which presents, among others, the current state of research concerning commentaries on *De somno*. Other valuable pieces of information can be found in Sten Ebbesen's edition of Simon of Faversham's questions to *De somno*. Cf. S. EBBESEN, "Simon of Faversham *Quaestiones super librum De somno et vigilia*: An Edition," *Cahiers de L'Institut du Moyen-Âge Grec et Latin*, vol. 82 (2013), p. 90–145. Problematic approach to various physiological and psychological issues in medieval Latin *Parva naturalia* commentaries, can be found in: *The Parva Naturalia in Greek, Arabic and Latin Aristotelianism: Supplementing the Science of the Soul*, edited by B. Bydén, F. Radovic, Cham: Springer, 2018.

teach courses in logic and natural philosophy.² Of the latter, he commented on *Physics*, *De coelo*, *De generatione*, *De anima*, and *Parva naturalia*. It is probable that the commentaries on *Parva naturalia* followed immediately the commentary on *De anima*, because of the proximity of subjects³ and internal evidence found in *De sensu et sensato*.⁴ Among the five works which make up Burley's *Parva naturalia* commentaries, *De somno* occupies the most prominent position. It is not only the largest one⁵ but also the one most completely executed.⁶ It contains a literal exposition enriched with 23 questions, which may reflect Burley's genuine interest in the subject. In it, he tries to present a consistent vision of the phenomenon of sleep as that phase of daily life of an animal in which the organism is not at complete rest, as it might seem, but it functions in another way than when it is awake.⁷

In this paper, we try to reconstruct Burley's views concerning psychology and the physiology of sleep and dreaming with a special focus on so-called prophetic dreams. Burley is aware that already Aristotle had serious reservations with respect to the prophetic value of dreams. Therefore, he analyses Aristotle's teaching about sleep and dreaming and juxtaposes it with the commentaries of Albert and Simon in order to identify criteria that would allow a naturalist to establish the conditions of prophetic dreams. He does so by analysing conditions of sleep and dreaming in general, and thus narrows down the characteristics of what

² Cf. E. JUNG-PALCZEWSKA, *Między filozofią przyrody a nowożytnym przyrodoznawstwem: Richard Kilvington i fizyka matematyczna w średniowieczu*, Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 2002, p. 32.

³ Cf. GUALTERUS BURLAEUS, *Commentarium in "De sensu et sensato" Aristotelis*, prooemium: "Scientia de anima in tres partes distinguitur (...). Prima pars traditur in libro *De anima*, quoniam in libro *De anima* considerantur ea quae sunt communia omnibus viventibus secundum quod animata sunt, non inquantum calida vel frigida, dura vel mollia, simplicia vel composita, sed solum inquantum sunt animata. (...) Sed media pars continet ea quae sunt communia corpori et animae. Omnes enim potentiae animae praeter potentiam intellectivam sunt potentiae organicae et de talibus potest esse duplex consideratio: una in comparatione ad animam, et illa traditur libro *De anima*, et alia in comparatione ad organum corporeum, et haec traditur in *Parvis libris*."

⁴ Cf. GUALTERUS BURLAEUS, *Commentarium in "De sensu et sensato" Aristotelis*, cap. 1: "Haec est pars executiva huius libri, in qua Philosophus prosequitur principale propositum probando aliqua prius determinata in libro *De anima* de sensu et sentire."

⁵ Burley's *De somno* commentary is roughly one third of the whole *Parva naturalia* set.

⁶ *De somno* commentary comprises both literal expositions and 23 questions devoted to particular problems related to the commented text.

⁷ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 1: "Intentio Philosophi in hoc libro, qui intitulum *De somno et vigilia*, est determinare de corporibus animatis secundum habitudinem, quam habent ad somnum et vigiliam. Somnus enim et vigilia non sunt hic subiectum primum, sed sunt passiones, quarum causae et principia inquiruntur in hac scientia. (...) Subiectum igitur huius scientiae est animal secundum quod in eo est principium motus ad somnum et vigiliam, et hoc est rationale, quia ista scientia subalternatur scientiae traditae in libro *Physicorum*, et ideo subiectum huius continetur sub subiecto illius."

amounts to a prophetic dream. It is interesting to see how Burley attempts to strengthen Aristotle's position on prophetic dreams in order to secure stronger philosophical support for the thesis that prophetic dreams exist and function as means of communication between the deity and man.

I. PHYSIOLOGY OF SLEEP

The specific character of the state of sleep is that, contrary to its apparent inaction, the organism is by no means completely passive. Following Aristotle, Burley treats animal's life as a sequence of wake-sleep cycles, each part of which has its specific functions that are necessary for animal's life and well-being.⁸ The phase of being awake is characterized by activities of the senses (both external and internal) and local motion, such as looking for food and eating, cognitive processes and sexual activities.⁹ The other phase also has its functions, even though they are more difficult to identify. The most important of them is rest, which is made possible by switching off the contact between external and internal senses, caused by the retraction of the spiritus from the brain, which coordinates perceptions from the senses located in the head (sight, hearing and smell).¹⁰ Another important function is related to the process of nutrition. According to Burley, sleep is the phase in which digestion of food is completed.

⁸ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 6: "Intellegendum etiam quod somnus est propter duplicem finem, quorum unus spectat ad esse animalis et alius ad bene esse. Finis autem somni spectans ad esse est salus animalium et finis spectans ad bene esse est vigilare seu actus vigilandi."

⁹ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 10, ad 3: "Ad ultimum <dicendum> quod in somno sensus communis ligatur et immobilitatur quantum ad fluxum et influentiam ad sensus exteriores, non tamen quantum ad influentiam ad sensus interiores."

Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 6: "(...) finis naturae animalium consistit in vigilando, quia finis est optimum, sed optimum animalis est sentire secundum actum perfectum aut sapere, id est videre secundum actum perfectum, quoniam in habentibus sensum tantum sentire secundum actum perfectissimum est obiectivum et in habentibus intellectum intelligere respectu perfectissimi obiecti est optimum, sed intelligere et sapere consistunt in vigilando et in exercendo opera vigiliae."

Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 9, corpus quaestionis: "Motor autem animalis, ex quo movet animal contra propriam inclinationem, movet ipsum cum labore et poena. Sed si continetur labor et poena, de facili solvitur proportio inter motorem et mobile; ideo ad hoc quod animal in esse conservetur, necessaria est sibi quies, et tunc somnus."

¹⁰ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 1: "Et vapores elevati ad cerebrum, cum ingrossantur per frigiditatem, descendunt et obturant meatus spirituum et impediunt influxum caloris et spiritus a sensu communi ad sensus exteriores, et tunc fit somnus, nam sensus exteriores non agunt nisi mediante virtute influxibili eis a sensu communi."

Consequently, it is during sleep that the organism grows.¹¹ It is small wonder, therefore, that for Burley, as for Aristotle, both phases are necessary for an animal to exist. When discussing a problem whether an animal can be awake throughout its life, Burley states that it could happen only accidentally if an animal lived so shortly that it would never enter the sleep phase. This is also true of those animals that enjoy short lives by nature, such as insects, molluscs, and the like.¹² Even though these animals do not have hearts, which according to Aristotle is the principle of being awake and, consequently, sleep, they are endowed with an organ equivalent to a heart and so are able to function in a way similar to animals with hearts.¹³ By contrast, plants, which have no organ similar to heart in any way, are neither awake nor asleep. Their yearly and daily cycles of activity and inactivity only superficially resemble sleeping and being awake and can only be described as such metaphorically.¹⁴

Burley analyses sleep and identifies its causes, mechanism, and functions. In his analyses, he studies both physiological and psychological aspects of it. He presents them against the background of scholastic natural philosophy, most

¹¹ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 3: "Sed illae operationes melius fiunt sine sensu quam cum sensu, cuius signum est in animalibus quod melius nutriuntur et augmentantur in dormiendo, cum cessant ab actu sentiendi quam vigilando, cum actualiter sentiunt. Nutriuntur enim et augmentantur magis dormiendo quam vigilando, tamquam actus sentiendi nihil faceret ad illas operationes."

¹² Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 4, corpus quaestionis: "Ad quaestionem dicendum quod nos possumus loqui de animali dupliciter: aut secundum naturam et secundum ordinem vel secundum cursum naturalem, aut quantum ad ea quae accidunt praeter naturam et praeter naturalem cursum. Loquendo de animali primo modo sic necesse est omni animali inesse somnum et vigiliam, et hoc dicit Philosophus sic dicens: *necessario cuilibet animali inesse somnum. Dico autem ex suppositione necessitatem, quoniam si animal erit habens suam naturam, ex necessitate ei inesse quaedam oportet*, id est somnum et vigiliam. Loquendo tamen de animali quantum ad illa, quae accidunt ei praeter cursum naturalem, sic dico quod non oportet quod omni animali insit somnus aliquando et aliquando vigilia, quia possibile est quod animal vigilans interficiatur antequam dormiat. Si tamen vivat secundum tempus debitum suae naturae, oportet quod aliquando vigilet et aliquando dormiat."

¹³ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 4, ad 3: "Ad aliud argumentum quod in habentibus cor est somnus passio cordis principaliter et in non habentibus cor est somnus passio alicuius proportionalis. Ad confirmationem dicendum quod quaedam animalia dicuntur vivere ad modum plantae, quia sunt immobilia sicut plantae et conveniunt cum plantis. Sed illa convenientia est in partibus vegetativae, quibus non convenit somnus. Sed omne animal est supra ea quae sunt plantae: habet sensum, et ratione illius accidit somnus animalibus et non plantis."

¹⁴ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 3, corpus quaestionis: "Et tunc plantis nec inest somnus nec vigilia. Tamen in plantis est aliquid simile, quia reversio caloris ad interius similis est somno et expansio caloris ad exterius similis est vigiliae. Tamen illa accidunt plantis alia de causa quam somnus et vigilia accidunt animalibus, quia somnus accidit animali propter vaporem elevatum ad cerebrum et ibi infrigidatum, sed reversio caloris ad interius accidit plantis propter frigidum exterius."

of all the doctrine of primary qualities, which are responsible for the changes within the body that, in turn, trigger certain psycho-somatic processes. Like Aristotle before him, Burley sees primary qualities as factors engaged in an active relation with one another, where one member of each pair is a force (*agens*) while the other is a recipient (*patiens*). In a living body, the processes of life can, therefore, be described by means of a dynamic relation between heat and humidity, the active members of both pairs (heat – coldness, humidity – dryness).¹⁵ Consequently, he is convinced that both humidity and heat are necessary for life, which is best shown by his belief that exhausting either of them is tantamount to the death of the organism.¹⁶ As a result, we obtain quite a complex picture of relations within an organism: the forces are opposed to one another and act on one another, but they also act on their recipients. Each of these actions has a specific, well defined role in the physiology of an organism. The role of passive qualities is mainly to provide “matter” for the active ones, in which they can act.¹⁷ It is only when a body has appropriate proportions and amount¹⁸ of both heat and coldness that it can function properly; the same, of course, is true of the other pair. At the physiological level, the action of primary qualities is realised through the motions of two substances: natural heat and *spiritus* (the Latin translation for Aristotelian *pneuma*), which penetrate the whole body in such a way that their higher condensation enables body parts to perform their functions, while their lower condensation results in their disability or lack of action.

As has been said, sleep and, consequently, dreaming can be analysed with respect to the causes, mechanism, and functions. Trying to find out what distinguishes sleep from unconsciousness, Burley notes that, contrary to sleep, unconsciousness (*impotentia sentiendi*) is a pathological state, which is a result of

¹⁵ Cf. GUALTERUS BURLAEUS, *Commentarium in “De longitudine et brevitate vitae” Aristotelis*, cap. 2: “Secundum corollarium est quod quando aliquod contrarium inexistit ipsi vivo et contraria approximata ad invicem de necessitate sunt activa et passiva, sequitur quod omnia viventia sunt semper in motu et fiunt et corrumpuntur continue (...)”

¹⁶ Cf. GUALTERUS BURLAEUS, *Commentarium in “De longitudine et brevitate vitae” Aristotelis*, cap. 1: “(...) animal non moritur secundum naturam, nisi quia humidum radicale est facilliter exsiccabile, vel quia calidum naturale est infrigidabile ab exteriori.”

¹⁷ Cf. GUALTERUS BURLAEUS, *Commentarium in “De generatione et corruptione” Aristotelis*, edited by M. Gensler, in: M. GENSLER, *Kłopotliwa zmiana czyli Waltera Burleya zmagania ze zmiennością rzeczy*, Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 2007, p. 290, 303–304.

¹⁸ Cf. GUALTERUS BURLAEUS, *Commentarium in “De longitudine et brevitate vitae” Aristotelis*, cap. 4: “Ex dictis hic apparet manifeste quod complexio temperata non est causa absoluta longitudinis vitae, sicut quidam dixerunt, nam temperatum potest esse in parvo calido et parvo humido, immo causa longitudinis vitae est temperatum inter calidum et humidum et etiam magnitudo utriusque. Et ideo communiter est causa longitudinis assignata tam ex parte qualitatis quam ex parte quantitatis.”

illness or injury.¹⁹ Sleep, by contrast, is a natural state of an organism, necessary for sustaining its well-being. It is induced by a natural process regulated by psychological causes and physical causes.²⁰ It is interesting that according to Burley, who follows Albert the Great here, psychological causes encompass not only the ones responsible for the cognitive activity,²¹ but also the ones responsible for digestion,²² which is a clear sign that he sees the soul as the cause of vegetative as much as motoric, sensory and intellectual processes. The physical causes of sleep can be divided into two categories: sleep can be triggered by the physical activity of the organism itself (work) or by an external factor (for instance, eating).²³ In all these cases, the immediate cause of sleep is the depletion or retraction of *spiritus* and heat:²⁴ depletion through work and retraction

¹⁹ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 7: "Quod autem in pueris sit multa evaporatio nutrimenti delata sursum probatur per quoddam signum. Et est quod in tali aetate membra superiora, ut caput et manus, crescunt magis quam membra inferiora, ut sunt pedes vel tibiae. Hoc non est nisi propter maiorem ascensum nutrimenti sive vaporis a nutrimento ad partes superiores. Et propter hoc est, quia est tanta habundantia humiditatis et tot vapores ascendunt in pueris, ideo epilepsia accidit saepius constituta in puerili aetate quam quando sunt in alia aetate, et hoc est signum quod in pueris est multa evaporatio. Epilepsia est aegritudo causata ex magna superfluitate ascendente ad superiora, quae ingrossata descendit inferius per vias respirationis et obturat venas expirationis et deficiente expiratione moritur animal."

Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 7: "Cum enim somnus sit impotentia sentiendi et non omnis impotentia sentiendi est somnus, ut suffocatio et animae defectio etc."

²⁰ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 5, corpus quaestionis: "Unde secundum Albertum quattuor sunt causae somni, duae ex parte animae et duae ex parte corporis. Et ex quacumque causa accidit somnus, semper vigilia praecedit somnum."

²¹ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 5, corpus quaestionis: "Alia causa huius immobilisationis ex parte animae est profunda cogitatio. Quando enim homo profunde cogitat, calor et spiritus trahuntur ad interius ad confortandum cogitativam, et tunc immobilitantur sensus exteriores, et fit somnus."

²² Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 5, corpus quaestionis: "Una causa est digestio nutrimenti, nam anima revocat spiritus ad interius tempore et loco digestionis, et spiritus retracti ad interius calefaciunt partes interiores et confortatur digestio, et ex illa retractione contingit immobilitatio sensuum exteriorum, et tunc fit somnus."

²³ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 5, corpus quaestionis: "Ex parte corporis sunt duae causae. Una: labor corporalis, nam per laborem corporalem fit maxime consumptio et debilitatio et deperditio spirituum, et nisi esset confortans eos, totaliter deficerent et moreretur animal. Et ideo calor et spiritus trahuntur ad interius per laborem corporalem. Alia causa ex parte corporis est evaporatio nutrimenti."

²⁴ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, 7: "Ideo non omnis impotentia sentiendi est somnus, sed illa quae causatur ex evaporatione facta ex nutrimento, nam calido agente in nutrimento circa locum digestionis necesse est fieri evaporationem. Et illud, quod evaporatum est virtute calidi, propellitur sursum ad cerebrum et in frigiditate cerebri infrigidatur et ingrossatur et descendit et impedit influxum virtutis a sensu communi ad sensus exteriores, et fit somnus."

as a result of competing physical or psychological activity requiring a greater condensation of *spiritus* and heat in another interior organ, be it the stomach or the brain.²⁵ Burley gives two interesting side arguments in support of his theory that the cause of sleep is related to the activity of natural heat. First, he notes that infants and some old people, whose organisms are dominated by phlegmatic humour, sleep longer and more than other people. This is because their organisms are more humid and, therefore, their natural heat is more easily depleted.²⁶ Secondly, he observes that people with narrow veins are more likely to feel sleepy, because narrow veins are more easily obstructed by the cooled *spiritus* flowing down from the brain.²⁷ Unconsciousness is also caused by the obstruction of the veins leading to the brain; its cause, however, is not natural but accidental (mechanical in case of suffocation and physiological in case of

Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 7: "Quod somnus causatur ex evaporatione facta ex nutrimento et qualiter hoc sit, dictum est. Intelligendum est quod evaporationes ad cerebrum elevatae et ibidem in frigidatae propter gravitatem suam necesse est descendere, non solum per easdem vias, sed per alias, ut per concavitates nervorum deferentium spiritus vitales et calorem ad organa sensuum exteriorum, et tunc impediendo influxum sensus communis ad sensus exteriores causatur somnus."

²⁵ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 5, corpus quaestionis: "Sic igitur patet quod vigilia semper praecedat somnum, quia universaliter somnus fit ex retractione caloris et spiritus ad interius, et quod retrahitur ab aliquo, praeeexistit in illo; igitur ante somnum in organis exterioribus erant spiritus et calor, sed vigilia non est nisi praesentia caloris naturalis in sensibus exterioribus; igitur etc."

Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 7: "Quinto supponitur quod cum nutrimentum ingreditur ab extrinseco ad loca digestiva, ut ad stomachum, hepar, fit quaedam evaporatio a nutrimento usque ad venas, per quas differtur."

²⁶ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 13, corpus quaestionis: "Ratio primi est, quoniam in pueris multae fiunt evaporationes, quia pueri sunt calidi et humidi, cuius signum est quod in pueritia partes superiores sunt maiores partibus inferioribus. Pueri etiam sunt multum somnolenti, et hoc est signum quod in eis multae fiunt evaporationes."

Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 7: "Sed cum <homo> senescit, tunc est caliditas impura, et ideo eius ascensus est ad angulum expansum. Et ideo secundum diversas aetates facit calor diversas staturas in corpore humano."

²⁷ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 7: "Sex-tum signum est quod illi multum dormiunt et mutum amant somnum, qui angustas habent venas, quia propter angustiam venarum prohibetur descensus vaporum. Vapor enim, quando est subtilis, faciliter ascendit per venas angustas, sed postea, cum ingrossatur, non potest faciliter descendere, sed diu manet in venis et diu impedit influxum virtutis a sensu communi ad sensus exteriores. Et propter hoc habentes angustas venas sunt amatores somni. Similiter et illi qui habent magna capita quae recipiunt multas evaporationes et propter magnitudinem cerebri illi vapores multum ingrossantur et cito, tunc multotiens in eis fit somnus multus. Similiter in habentibus collum breve fit velox ascensus evaporationis a locis digestivis ad cerebrum. Sed habentes venas magnas et amplas non sunt ita somnolenti."

illnesses) and its action is so severe that it results in switching off not only the external senses but the internal ones as well.²⁸

The distinction between a healthy sleep and an unhealthy one is based on the above distinction. In contrast to healthy sleep, which is natural, unhealthy sleep is brought about by some accidental cause. Burley notes that some kinds of food, such as mandrake root or wine, possess special qualities which affect the process of digestion in such a way that more heat is used up in the process. This results in the depletion of heat and the production of an excess of *spiritus*; and that is why he calls them 'very evaporative'. The *spiritus*, in turn, first ascends to the brain, where it is cooled (since brain is generally considered to be the coolest organ of the body) and flows down obstructing the veins leading from the brain so rapidly that it causes extraordinarily deep sleep resembling unconsciousness to an outside observer. Such sleep may be invoked deliberately by physicians as a form of analgesia or, less deliberately, by drunkards.²⁹ Healthy sleep is characterized by the same process; however, it is not exaggerated by accidental causes: when speaking of it, Burley identifies two phases, both engaging the *spiritus*. In the first one, the *spiritus* is revoked from outlying organs to accompany natural heat in the process of digestion – this revocation causes drowsiness. In the second phase, digestion produces new *spiritus*, which – as a hot vapour – ascends to the brain, where it is cooled and descends back causing sleep. The objective of this motion is to purify the blood from toxic substances. Once the blood is

²⁸ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 15, ad 3: "Ad aliud dicendum quod sensus communis ligatur in somno quantum ad immutationem ab aliis sensibus exterioribus, sed non quantum ad immutationem a sensibus interioribus. Unde somnus est impotentia primi sensitivi in comparatione ad sensus exteriores, non in comparatione ad sensus interiores."

Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 4: "Adhuc sunt aliae impotentiae sentiendi, quoniam in diversis partibus cerebri fiunt diversae species dementiae, ut in anteriori parte cerebri frenesis, quae provenit ex superfluitate caloris, et alia species in parte posteriori ex superfluitate sanguinis; et tunc accidit impotentia sentiendi ex vehementia motus animae circa partem illam, in qua est talis dementia. Similiter autem fit impotentia sentiendi, quando venae et meatus, per quos spiritus ascendunt ad caput vel descendunt a capite, clauduntur per compressionem vel alio modo. Et illa impotentia sentiendi non est somnus, non ergo est omnis impotentia sentiendi somnus, sed solum impotentia primi sensitivi, scilicet sensus communis."

²⁹ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 7: "Primum est: illa, quae sunt multum evaporantia, inducunt multum somnum, ut vinum, lolium, mandragora; et hoc est signum quod evaporatio est causa somni. Mandragora est arbor, cuius cortex, si teratur et misceatur cum vino vel cum aliquo liquore potabili et detur alicui ad bibendum, ipse redditur insensibilis; et propter hoc talis potus datur eis ad bibendum, quorum corpora debent secari vel uri. Tales enim fiunt per potum illum quasi insensibiles nec sentiunt dolorem propter fortitudinem somni."

purified, an animal wakes up, because the *spiritus* can be used again by other organs.³⁰

2. THE UNDERPINNINGS OF DREAMS

On the basis of the above distinctions, it is easy to see that for dreams to appear it is necessary that the contact between external senses and internal ones is severed in such a way that the former are switched off (put on standby) but the latter stay active, regardless of the healthiness or unhealthiness of sleep itself. Dreams as such are products of phantasy, one of the internal senses. The material for them are the images (*simulacra*) of perceptions stored in the retentive sense (memory). In the explanation of the nature of dreams, Burley uses the Aristotelian metaphor of reflections on water. Images are reflected by phantasy in a similar way that objects are reflected by water. If the water is still, reflections resemble objects closely; if water flows gently, little waves distort the reflection in the degree corresponding to the speed of the current. When the current is rapid, no reflections can appear. In case of dreams, the current of water corresponds to the passions agitating phantasy. If the dream is healthy, phantasy is not agitated, and the dream resembles reality. Agitation of phantasy, which produces weird dreams, may result from a number of factors, some of which are correlated with unhealthy sleep. One of these factors is the natural complexion of the organism – melancholics (atrabilious people) are more prone to such dreams than people of other temperaments; this factor has internal and, therefore, durable character. There are also external factors, which are temporarily limited in their agitative function: some of them are illnesses, especially those which cause fever; some other ones could be labelled as poisonings, here the most popular example is drunkenness. If the agitation of phantasy is too strong, no dreams appear.³¹

³⁰ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 8: "Solutio Philosophi est ista, quod vapor calidus elevetur sursum ad cerebrum et ibi infrigidatur et condensatur, et tunc descendit propter gravitatem et repellit calorem naturalem ad interius, et tunc cessant sensus exteriores ab actu sentiendi, quia non sentiunt absque calore. Unde et calidum est causa somni et etiam frigidum, quia vapor in principio, quando ascendit, est calidus, sed postea, quando descendit, est frigidus. Et ideo causa proxima et immediata somni est vapor infrigidatus et causa remota est vapor calidus, sicut patet de vapore elevato per caliditatem Solis: ille vapor in principio est calidus, sed postea, cum venerit ad locum frigidum in aere, infrigidatur et ingrossatur, et tunc descendit, et est causa pluviae vel nivis. Unde quando in animali non possunt vapores per calorem ulterius elevari, descendunt et repellitur calor naturalis, et tunc vadunt animalia et homines declinando a statura recta propter repulsionem caloris naturalis."

³¹ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, cap. 11: "Modus autem intellectus ipsorum simulacrorum in apparendo est talis sicut modus motus circulationum factarum in aqua circa locum percussiois. Si autem aliquid proiciatur in fluvio, circa locum

Burley is also interested in the problem of to what extent dreams are detached from outside reality and, conversely, how much the outside reality affects our dreams. The original assumption that sleep severs links between external and internal senses (the external ones remaining in standby mode) is modified by him when he speaks of instances in which some link between the two is preserved even though one is asleep. In such cases, certain traces coming from perceptions of various external senses can enter the dream, either in an undisturbed way as light of a lantern or crowing of a cock, or in a modified way. Following Albert the Great, Burley divides the latter into those whose source is psychological and those whose source is physical. The example of the first group is a strong emotional link, e.g. with a friend, that causes dreams, in which he or she often appears. The example of the other one is indigestion, which may result, for instance, in a dream about a burning spear piercing one's stomach.³² It is impor-

percussionis apparent et fiunt circulationes undique una post aliam continue usque ad aliquem terminum secundum virtutem impellentis. Etsi circa talem circulum obviet aliquid prohibens, reflectitur ad locum percussionis dissolvendo circulationes primas. Eodem modo in somnis fit motus simulacrorum interius undique, frequenter quidem secundum figuram similem motui, qui fit a sensibili primo, scilicet quando ab aliquo non dissolvitur et quandoque solvuntur simulacra in aliam figuram dissimilem, quando videlicet fit repercussio ab aliquo alio vel a figura alterius simulacri et facit alterius apparitionem. Et quia figura simulacri dissolvitur per aliquod obvians, propter hoc pueris et aliis post acceptionem nutrimenti non accidunt somnia, vel si accidunt, hoc erit raro et somnia sunt distorta, et hoc propter multum motum. Istud patet in quodam simili evidenti, nam in aqua velociter mota non apparent idola respicientium in aqua, nam propter fortem motum prohibetur impressio et apparitio imaginis. Sed si aqua moveatur non tamen ita velociter, apparent imagines, sed distortae. Sed si aqua fuerit totaliter quiescens, apparent imagines manifestae et convenientes rei, et sic est in somno. Quando enim fit magnus motus in corpore vel in spiritibus, in quibus sunt imagines, non apparent imagines propter fortem motum. Sed si sit motus minor, tunc apparent imagines distortae, ita quod aliquando apparent visiones monstruosae, quasi compositae ex partibus diversorum idolorum concurrentium. Et tunc fiunt somnia distorta et magis remota a veritate, sicut contingit melancholicis et existentibus in passione febris et ebriis ex multo potu vini. Huiusmodi enim passiones, ut melancholia, febris, ebrietas, sunt valde ventosae et ideo in habentibus ipsas faciunt multum motum interius et perturbant apparitionem rectam idolorum. Sed cum sedatur huiusmodi motus passionum et separatur sanguis purus ab impuro, ut facta digestionem, tunc apparent verae imagines et apparent somnia valida et magis propinqua veritati. Et huiusmodi apparitio accidit secundum unumquemque sensum, quia species receptae in quocumque sensu exteriori gignunt speciem in sensu interiori. Et ideo illae similitudines repraesentant apprehensa secundum unumquemque sensum.”

³² Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 22, corpus quaestionis: “Sed advertendum per Albertum hic quod aliquando somnia significativa ostenduntur nobis ex corporibus caelestibus et aliquando ex nobis ipsis. Et somnia, quae habent originem ex nobis, aut extenduntur ex parte corporum, aut ex parte animae. Ex parte corporum sicut contingit, si in aliquo abundet humor phlegmaticus vel cholericus, ex quo contingit partes corporis moveri et per virtutes et potentias alligatas organis, quae non ligantur in somno, et ex illo humore phantasiam formare sibi idolum simile illi humori, ex quo contingit quod aliquis somniat se esse in aqua vel in igne, et illa somnia sunt signa vel pluviae, quae accidit ex tali humore, ut si nos

tant to stress here that for Burley such dreams cannot be classified as prophetic, since they are merely imaginary responses to the stimuli that enter dreams from outside.

Another group of visions, which are often confused with prophetic dreams, are near-death experiences.³³ Burley is convinced that in such situations a person may receive visions from angels or demons. This is possible, because of the specific situation, in which the soul is almost separated from the body and, therefore, can receive such visions in an extra-sensual way. They cannot be called dreams, since instead of the severing of the link between external and internal senses caused by the processes regulated by the wake-sleep cycle, one encounters here the ultimate breakdown of the whole cognitive system. Burley does not say it specifically, but it may be inferred that such visions are of intuitive character, i.e., not involving the activity of sense perception at all.

3. PROPHETIC DREAMS

The descriptions and definitions presented above constitute a somewhat lengthy but necessary introduction to the main topic of our paper, i.e., the problem of prophetic dreams and their foundation in bodily processes. Burley devotes more space to saying what sleep is not in the proper sense than to defining it. One thing is certain, however: people in general experience various kinds of sleep; consequently, in some types of sleep, they also dream. His metaphor of reflections on a stream allows him to identify three types of sleep, two of which allow for dreams. Of those, one is called *verum somnium*. This is the one, in which phantasy reflects images stored in memory in an undistorted way. For this reason, *vera somnia* can be called signifying dreams. Such a dream does not have to be prophetic, as we could see from the examples above, but only this one is the proper medium for a prophetic vision, since it makes the soul a perfect recipient — a mirror so to say — for the influences which produce prophetic

somniamus nos gustare dulcia phlegmate descendente a capite, sicut dicit Albertus, quod quidam somniat picem ardentem infundi in ventre suo, quia in eo humidat (*forsitan rectius* habundat) cholera nigra. Unde ipse surgens emittit choleram nigram. Et tunc contingit quod somnia aliquando insunt nobis ex parte corporis, aliquando autem contingit somnium ex parte animae, ut contingit, quando aliquis in vigilando maxime afficitur circa delictum suum, sicut dicit Philosophus, quod amici procul existentes maxime sunt solliciti sibi invicem. Contingit igitur quod anima formet sibi idolum conveniens delicto et ex hoc quod idem idolum apparet imaginationi, apparent multa idola eorum, quae eveniunt circa delictum de enfortunio et infortunio, similiter de prosperitate et inprosperitate.”

³³Cf. GUALTERUS BURLAEUS, *Commentarium in “De somno et vigilia” Aristotelis*, cap. 7: “Sed hoc est falsum, quia patientibus animae defectionem ita languentibus in ultimo statu vitae multa apparent, quae non sunt somnia, sed apparitiones verae per angelos bonos vel malos.”

visions. In those cases, we can speak of a kind of foresight that is either of purely subjective origin or is a result of a concomitant external cause. Following Albert the Great, he mentions one cause of such influence: the heavenly bodies. Like most Christian scholastics, Burley is a representative of weak astral determinism, which means that he believes that heavenly bodies act upon sublunary bodies, not only inanimate ones (e.g. producing minerals in the earth crust³⁴) but also on living creatures.³⁵ In plants, a constellation of stars governs the phases of plants' growth;³⁶ in animals, it influences their behaviour (e.g. in mating season); in people, it affects the complexion of foetuses (and this is why we say that people born under certain stars differ in natural inclinations), and influences (positively or adversely) the harmony of humours in living people.³⁷ It also has an interesting influence on people who are asleep: it may bring prophetic visions concerning the course of events that is governed by the stars.³⁸

The main problem with prophetic dreams is that they are difficult to identify. In the first place, not everyone who has them is aware of the fact that he or she has experienced them. Moreover, even people who are convinced that they experienced a prophetic dream may find it difficult to understand it. Burley notes

³⁴Cf. E. GRANT, *Planets, Stars and Orbs: The Medieval Cosmos, 1200–1687*, Cambridge: Cambridge University Press, 1996, p. 612.

³⁵Cf. GUALTERUS BURLAEUS, *De planetis et eorum virtute*, Prologus, in: M. GENSLER, "Gualteri Burlaei adscriptus tractatus De planetis et eorum virtute," *Studia Antyczne i Mediewistyczne*, vol. 37 (2004), p. 211: "Sciendum, si quis nascatur in aliqua hora diei, in qua dominatur quibus septem planetarum, prior erit ad bonum sive ad malum secundum influentiam illius planetae, in quo natus est, sed tamen nullus illorum septem inducit aliquam necessitatem. Per liberum enim arbitrium et gratiam Dei et praevenientem et cooperantem bona facere potest homo, et e contra per liberum arbitrium et per concupiscentiam carnis et oculorum habens fomitem peccati in semet ipso mala multa facere quibit. Si quis ergo sciat, in qua diei hora natus fuerit, sequentia legat verba, et in factis suis bonis sive malis verborum sequentium reperire poterit veritatem."

³⁶Cf. GUALTERUS BURLAEUS, *Expositio in libros octo de physico auditu*, Venetiis 1490, f. 212ra: "In his etiam vegetabilibus videmus quod non semper augmentantur, quia in aestate augmentantur et in hieme non nisi raro." Cf. also M. GENSLER, *Kłopotliwa zmiana*, p. 160.

³⁷Cf. M. GENSLER, "Walter Burley on the Influence of Planets," *Mediaevalia. Textos e estudos*, vol. 23 (2004), p. 84.

³⁸Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 22, corpus quaestionis: "Aliquando autem inest nobis somnium a corporibus caelestibus, nam corpora caelestia influendo virtutem corpori nostro et partibus eius alterant partes corporis in somno, et per consequens virtutes alligatas ipsis, et tunc contingit quod phantasia formet idola convenientia influentiae corporis caelestis, quae mittuntur ad sensum communem, et provenientia ibi alterant organum sensus communis. Ex qua alteratione apparent idola aliquorum effectuum futurorum animae, et contingit quod pronunciet de fertilitate et infertilitate terrae et de bellis contingentibus, quae accidit ex suppositionibus corporum caelestium."

Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 10, ad. 2: "Et hoc si simpliciter dormiant vel posito quod simpliciter dormiant, non respondent ad interrogata, quia acceptant interrogata, sed respondent per virtutem superiorem, quia scilicet hic influitur eis per aliquam virtutem supracaelestem."

that the people who have a special gift of prophetic dreams are the ones whose souls are undisturbed by the troubles of daily life. It may seem amusing but almost the only example of such people which he gives, following Aristotle of course, are fools. He mentions yet another category of people with a propensity for prophetic dreams: melancholics (atrabilious people). Here his explanation is different. Their temperament makes them prone to sleep more and longer than others (probably because greater intensity of natural coldness, which they share with phlegmatics), therefore they are more likely to have many dreams. Moreover, because of their complexion, their dreams are more obscure (and probably prophetic), which invites for their interpretation. Naturally, it is clear for Burley that neither of those groups may have sufficient mental capacities for interpreting their dreams and, therefore, those visions are seldom self identified as prophetic or are, at best, falsely interpreted. In such cases, prophetic dreams have to be interpreted by others.³⁹

Speaking of interpreters of dreams, Burley mentions a number of requirements that must characterize such a person. It is not unexpected that an interpreter of dreams should be a natural philosopher since only philosophers possess sufficient knowledge of both human nature and the heavens. The former allows them to obtain precise information concerning particular complexion, features of character, habits, and behaviour of the dreamer, the latter give them equally precise information of the constellation of the time of the dream. It is only thanks to a conjunction of deep theoretical knowledge of astronomy and psychology and long experience in practising the art of explaining dreams that

³⁹ Cf. GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis*, qu. 23: "Circa dictum Philosophi, quando dicit quod fatui et melancholici sunt bene divinantes, intelligendum est quod aliud est divinare et aliud divinationem interpretari sicut aliud est illud quod est verum et aliud est agere verum. Illi sunt bene divinantes, quibus apparent vera somnia, sed illi sunt boni interpretatores somniorum qui cognoscunt quae somnia quorum sunt signa. Illi bene divinant qui habent animam mundam a curis exterioribus et a motibus interioribus liberam, et tales sunt fatui, quia fatui non sunt solliciti circa terrena, et ideo modici motus eis apparent in somno, quae non apparent aliis circa alia sollicitis. Similiter melancholici sunt frigidi et sicci, et ideo recipiunt impressiones de difficili mutabiles, quae passiones (*forsitan rectius* impressiones) manent, etsi mutantur in passionibus. Unde etsi novae passiones supervenient, tamen priores impressiones manent. Similiter multa eis apparent in somno, sicut multa imaginantur in vigilia. Vapores etiam in melancholicis ascendentes caput sunt obscuri et nigri. Unde inficiunt et obscurant phantasmata, sicut fumus niger inficit illud quod attingit. Et ideo anima eius naturaliter abhorret sua phantasmata et si hoc, non percipiat, et propter hoc non permanet in eadem imagine, si mutatur de simili in simile. Sed secundum Philosophum in littera proverbialiter dicitur: *qui plura iacit dispariter iacit*. Unde non potest esse, quin melancholico quandoque apparent phantasmata convenientia rei. Et ideo fatui et melancholici saepe somniant vera, et ideo sunt bene divinantes, tamen non sunt boni interpretatores somniorum (...)."

someone engaging in interpretation of dreams may succeed. This is why Walter Burley says it is so difficult.⁴⁰

Putting all things together, we may offer a few words in lieu of a conclusion. In the first place, Burley treats interpretation of dreams as a part of the scientific endeavour, subject to all the methodological requirements proper for natural philosophy. Consequently, he scrutinises all the elements of the process of divination, describing the phenomena, defining the concepts, analysing the structure of constitutive parts, identifying internal and external factors, distinguishing the natural and accidental causes and figuring out how they affect one another. Secondly, he is able to defend interpretation of dreams as a reasonable and legitimate activity by showing that it possesses certain explanatory and predictive force, which makes the task, difficult as it may be, both worthwhile and amazing. Thirdly, and finally, even though the interlocking causes and effects of processes within the body and mind give an impression of a mechanism, Burley is far from treating his explanations in a deterministic way. He is able to pinpoint the moments of indeterminacy present in those processes that may cause an array of possible results. That, in turn, happens due to the multiplicity of factors engaged in those processes. Both the “scientific” legitimisation of prophetic dreams and “a proof” of their non-deterministic character are also important for Burley in another respect. In this way, he is able to preserve the consistency of both religious and philosophical views without compromising one or the other.

BIBLIOGRAPHY

Manuscripts

Oxford, All Souls, cod. 86 (A), f. 212^{ra}–222^{va}.

Oxford, Magdalen College, cod. 146 (M2), f. 83^{ra}–95^{ra}.

Oxford, Oriel, cod. 12 (O), f. 69^{va}–86^{vb}.

Vatican, Bibliotheca Vaticana, Vat. lat. 2151 (V), f. 88^{va}–108^{vb}.

⁴⁰ Cf. GUALTERUS BURLAEUS, *Commentarium in “De somno et vigilia” Aristotelis*, qu. 23: “(...) quia ad interpretationem requiritur quod homo cognoscat similitudinem sibi apparentem et sciat discernere inter rerum similitudines et inter ipsas similitudines et res, quarum sunt. Oportet etiam quod sciat quae phantasmata quis effectus significant et etiam quae sunt influentiae corporum caelestium. Oportet etiam inspicere ad complexionem somniantis et ad mores somniantis. Oportet etiam, quod sciat ex una parte phantasmatis figurare eventus, ex alia parte qualitates eventus et ex alia parte mores et condiciones somniantis. Sed hoc est difficile. Ideo fatui et melancholici non sunt boni interpretores somniorum, ideo etc.”

Printed sources

- EBBESSEN S., "Simon of Faversham *Quaestiones super librum De somno et vigilia*: An Edition," *Cahiers de L'Institut du Moyen-Âge Grec et Latin*, vol. 82 (2013), p. 90–145.
- GENSLER M., "Walter Burley on the Influence of Planets," *Mediaevalia. Textos e estudos*, vol. 23 (2004), p. 81–88.
- GUALTERUS BURLAEUS, *Commentarium in "De generatione et corruptione" Aristotelis*, edited by M. Gensler, in: M. Gensler, *Kłopotliwa zmiana czyli Waltera Burleya zmagania ze zmiennością rzeczy*, Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 2007.
- GUALTERUS BURLAEUS, *Commentarium in "De longitudine et breuitate vitae" Aristotelis* (forthcoming).
- GUALTERUS BURLAEUS, *Commentarium in "De sensu et sensato" Aristotelis* (forthcoming).
- GUALTERUS BURLAEUS, *Commentarium in "De somno et vigilia" Aristotelis* (forthcoming).
- GUALTERUS BURLAEUS, *De planetis et eorum virtute*, Prologus, in: M. Gensler, "Gualteri Burlaei adscriptus tractatus De planetis et eorum virtute," *Studia Antyczne i Mediewistyczne*, vol. 37 (2004), p. 209–214.
- GUALTERUS BURLAEUS, *Expositio in libros octo de physico auditu*, Venetiis 1490.
- GRANT E., *Planets, Stars and Orbs: The Medieval Cosmos, 1200–1687*, Cambridge: Cambridge University Press, 1996.
- JUNG-PALCZEWSKA E., *Między filozofią przyrody a nowożytnym przyrodoznawstwem: Richard Kilvington i fizyka matematyczna w średniowieczu*, Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 2002.
- The Parua Naturalia in Greek, Arabic and Latin Aristotelianism: Supplementing the Science of the Soul*, edited by B. Bydén, F. Radovic, Cham: Springer, 2018.
- THOMSEN-THÖRNQVIST CH., "Walter Burley's Expositio on Aristotle's Treatises on Sleep and Dreaming: An Edition," *Cahiers de L'Institut du Moyen-Âge Grec et Latin*, vol. 83 (2014), p. 379–515.

THE PHYSIOLOGY OF DIVINATION IN WALTER BURLEY

S U M M A R Y

Walter Burley's commentary on Aristotle's *De somno et vigilia*, *De insomniis*, and *De divinatione per somnium* is an interesting presentation of early fourteenth century views concerning psychology and the physiology of sleep and dreaming.

Prophetic dreams, the main subject of the third commented treatise, are interpreted as a special phenomenon belonging to that area of study. Supplementing the teaching of Aristotle with opinions found in commentaries of Albert the Great and Simon of Faversham, Burley tries to identify criteria that would allow a naturalist to establish the conditions of prophetic dreams. He does so by analysing the nature and conditions of sleep, and dreaming in general, and thus narrows down the characteristics of what amounts to a prophetic dream. It is interesting to see how Burley attempts to strengthen Aristotle's position on prophetic dreams in order to secure stronger philosophical support for the thesis that prophetic dreams exist and function as means of communication between the deity and man.

KEYWORDS: Walter Burley, Aristotelianism, commentaries on *Parva naturalia*, sleep and dreaming, prophetic dreams

SŁOWA KLUCZE: Walter Burley, arystotelizm, komentarze do *Parva naturalia*, sen i śnienie, sny prorockie