

Translation as Interpretation: Translating Galen's Polysemous Term *Physis* into Arabic

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In the ninth century almost the entire corpus of the Greek physician Galen was translated into Arabic, mainly by Ḥunayn ibn Iṣḥāq and his circle. A key concept of Galen's thought is nature (*physis*) and the physician uses it in many ways and with different meanings. His late antique commentators show great awareness of the polysemy of the term *physis*, and the same applies to his Arabic translators. So the question arises of how Ḥunayn and his circle dealt with this polysemous term – did they choose a similarly polysemous Arabic term to keep the ambiguity of the original or did they render the text more precise by employing different terms? In the latter case, they would have provided not only a translation but also a concise account of how they understood nature in a given translated passage and/or how they wanted their audience to understand it. The article studies one particular case, the translation of the term *physis* within the Arabic translation of *On Diseases and Symptoms* done by either Ḥunayn or his nephew Ḥubayš. The exhaustive comparison between the Greek passages and their corresponding Arabic translations documented in the appendix shows that the translator mainly translated *physis* by two different terms of the same root, i.e. *ṭabī'a*, which is mostly used in phrases conveying an activity, and *ṭab'*, which is mainly employed in an adverbial sense. Particularly interesting are cases in which *physis* is simply not translated, as in some of them Galen may speak about demiurgic Nature, a principle that he often equates to the divine Demiurge, especially in his *On the Usefulness of the Parts*. These findings also allow for some tentative suggestions regarding the translation's intended audience.

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How does a translator deal with polysemous words? Does he choose one term to translate such a polysemous word, consistently sticking to the chosen equivalent and thus rendering the polysemy as well as the ambiguity of the original? Or does he use his translation as an opportunity to make the text less ambiguous by interpreting the polysemous term each time it occurs and by translating it differently according to how he understands the given polysemous word at every particular occurrence? In the latter case, the translator interprets the text he translates and furnishes us not only with a translation but also with his understanding

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of it. This, in turn, provides an interesting insight into how a text was read and understood at the time of its translation in the milieu of the translator in question. It may further indicate how the translator wanted to present the translated text to his audience and which understanding he hoped to convey to his readers. As a case in point, I want to pose these questions with regard to the rendering of the polysemous term »nature« (*physis*)¹ in the ninth-century Graeco-Arabic translation of Galen's *On Diseases and Symptoms*. There are various reasons for having chosen this text. The Galenic oeuvre which was translated into Arabic almost in its entirety in the ninth century played an important role in the constitution of scientific enquiry in the Arabic-Islamic world, a role which is still understudied. For whereas the Arabic translations of the Aristotelian corpus, which was likewise nearly completely translated into Arabic, are edited and studied, the Galenic translations still remain, for the most part, unedited and unstudied, which also applies to *On Diseases and Symptoms*. Yet, the corpora of these two great Ancient Greek scientists were translated at the same time, sometimes by the same people, and are thus equally important for our reconstruction of the development of scientific terminology in Arabic.² Furthermore, the concept of nature is a highly disputed one in the Arabic-Islamic tradition and some groups of Muslim scholars reject it due to its assumed limitation of God's omnipotence. Most prominently refuted is the idea that living beings act and react according to their inborn natures, for if they did, they would no longer be directly dependent on the divine decree.³ The understanding of nature as an intelligent agent, as an almost personified demiurgic Nature is also denied,⁴ although less vehemently, as the idea did not seem to have become sufficiently widespread in Arabic, as will be shown below. *On Diseases and Symptoms* contains passages in which the term »nature« is used in these two meanings as well as passages in which it is applied in several others. Thus the treatise provides an excellent case study for the translation of this polysemous term by one single translator at one particular time in his life and, probably, for one particular patron who commissioned the translation. A good understanding of each individual translation is indispensable for making broader comparisons between various translators and their translation methods possible.

A particularly interesting aspect of the so-called »Graeco-Arabic translation movement« during which the Aristotelian and the Galenic oeuvres were translated is that almost all Arabic translators were Christians and thus in a somewhat exposed position within the Muslim society.⁵ These Christians translated into Arabic mainly for Muslim patrons, whereas some of

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- 1 I have opted for using quotation marks to indicate terms in English, but for omitting them when indicating Greek and Arabic terms in transliteration.
 - 2 The list of the four meanings of nature according to Hippocrates which occurs in a summary or *Ġawāmi'* of Galen's *Book to Glaucōn* (*Kitāb Ġālīnūs ilā Ġulūqun*) and is cited below appears almost verbatim in the *Epistle on the Definitions and Descriptions of Things* (*Risāla fī Hudūd al-ašyā' wa-rusūmihā*, ed. Abū Rīda, I, 179.13-14) in which the so-called first philosopher of the Arabs, al-Kindī (d. after 866) defines philosophical terms.
 - 3 See, for example, Bernard, *Critique*.
 - 4 The physician and philosopher Abū Bakr al-Rāzī (d. 925), for instance, argues against it, see Genequand, *Quelques aspects*, 123-125.
 - 5 On the translation movement, see Gutas, *Greek Thought*; and Saliba, *Islamic Science*, esp. 60-64 where he advances a very interesting hypothesis about the position of the Christian translators in the developing Muslim society.

them also translated into Syriac for their co-religionists. This has in particular been shown for Ḥunayn ibn Isḥāq and his circle,⁶ from which the Arabic translation of *On Diseases and Symptoms* stems. Ḥunayn's translation techniques have already been studied for more than a century, yet his approach to polysemious terms has, as far as I am aware, never been dealt with in any detail.⁷

The Polysemious Term »Nature« in the Galenic Greek and Arabic Traditions

The polysemy of, in particular, scientific terms was already discussed by Aristotle in the fourth century BC. More than once, he turns the attention of his readers to the fact that a term discussed may be applied »in many ways« (*pollachōs*). Half a millennium later, Galen uses the very same expression *pollachōs* to refer to the manner in which »nature« (*physis*) is said.⁸ Unfortunately, he does not list these many ways of saying »nature«, and the account which he claims to have given of the signification (*sēmainomenon*) of »nature« in the fifth book of his *Medical Names* seems lost.⁹ However, the late antique commentators of both Aristotle and Galen develop the habit of compiling lists of definitions and divisions in which the various meanings of philosophical and scientific terms are gathered.¹⁰ Galenic commentators supply us with several diverging lists of the meanings of »nature«. Given the crucial importance which the term »nature« has for understanding Galen's medical thought, it comes as no surprise that such lists are found at the very beginning of the late antique Galenic curriculum, i.e. in the commenting and compiling literature of *On the Sects* with which the medical teaching was bound to begin.¹¹ Due to the fragmentary state of the late antique Greek texts on *On the Sects*, there is only one list of the meanings of »nature« preserved in Greek, namely in the *Tabulae Vindobonenses*. It reads:¹²

6 See Watt, Why.

7 Pioneering work was done by Bergsträsser, Meyerhof, Schacht and Strohmaier. For more recent studies and further references, see Vagelpohl, User-friendly Galen; Cooper, Ḥunayn ibn Isḥāq's Galen translations; and Overwien, Art of the translator.

8 See his *On Hippocrates' »Aphorisms«* 2, 34, ed. Kühn, XVII.2, 529.14: Τῆς φύσεως πολλαχῶς λεγομένης ... For a discussion of the passage, see Jouanna, Notion, 230-233.

Porphyry, who was Galen's contemporary and a commentator of Aristotle, uses the same expression in his commentary to the *Categories* in question-and-answer form and employs the same principle, i.e. citing different meanings of one and the same term, in the *Isagoge*, his introduction to the *Categories*.

9 In his *On Hippocrates' »Nature of Man«*, 1, Prooemium, ed. Mewaldt, 6.9-11, Galen claims to have provided an account of the signification of »nature«. His *Medical Names* are lost in Greek and only the first book seems to have been translated into Arabic. See Jouanna, Notion, 229; and Garofalo, Nature, 753. For the edition of the surviving Arabic text of the first book by Meyerhof and Schacht, see Galen, *On Medical Names*.

10 A particularly late product of this development can be found in an anonymous commentary on Porphyry's *Isagoge* in which a section on definitions and divisions is placed between the introductory material to philosophy and to the *Isagoge* and the beginning of the commentary proper. See Moraux, Unedierter Kurzkomm. 76-81 and 96-98. For the lists of the meanings of »nature« in Hippocrates and Galen, see Jouanna, Notion; and Garofalo, Nature.

11 See the most recent presentation of the Galenic curriculum with further references in Overwien, *Medizinische Lehrwerke*, 10-18; and on *On the Sects* in the curriculum, see *ibid.*, 30-34.

12 On the various extant fragments on *On the Sects*, see Overwien, *Medizinische Lehrwerke*, 26-30. The Greek text is arranged in tabular form and edited *ibid.*, 122: ἡ φύσις λέγεται τριχῶς; λέγεται φύσις καὶ ἡ ἐκάστου πράγματος οὐσία καὶ πρᾶξις; λέγεται φύσις καὶ ἡ διοικοῦσα τὸ ζῶον δύναμις; λέγεται φύσις καὶ ἡ κρᾶσις τοῦ σώματος. If not otherwise stated, all English translations are mine.

»Nature« is said in three ways: nature is called the substance (or essence) and *praxis*¹³ of every thing; nature is called the power governing the animal; nature is called the mixture of the body.

Other lists also going back to the late antique medical teaching tradition survive in Latin¹⁴ and in Arabic and display a considerable range of variation. Some can be found in the so-called *Summaries of the Alexandrians* (*Ġawāmi' al-Iskandarānīyīn*), i.e. summaries of Galenic treatises, which are almost exclusively preserved in Arabic but clearly go back to the Greek Alexandrian tradition. In the summary or *Ġawāmi'* of *On the Sects*, the list of the meanings of »nature« is similar to the Greek of the *Tabulae Vindobonenses*, yet with some remarkable differences:¹⁵

For this term, I mean »natural-disposition« (*ṭab*) or »nature« (*ṭabī'a*) is employed in three ways: One of them is the substance of every thing and its existence, the second is the power governing the animal's body, and the third is the mixture of the body and its habit.

To begin with, two Arabic terms of the same root (*t-b-*) are given as equivalent to the Greek term *physis*, namely *ṭab*¹⁶ which I translate as natural-disposition, and *ṭabī'a*. In a number of other texts which we shall consider in what follows, *ṭabī'a* remains the only term in similar passages, whereas *ṭab* is used to indicate a particular meaning of *ṭabī'a*, namely the mixture or disposition of a body. *Ṭab* thus becomes restricted to a particular section of the semantic field of *ṭabī'a*. The unusually wide range of *ṭab* here may be seen as evidence that this Arabic text was translated early on, in a period when the technical terminology was still being developed.¹⁷

Regarding the first meaning, the Arabic text mentions substance and existence. If the term »existence« (*wuġūd*) is not understood along the lines of essence and thus interpreted as part of a hendiadys »substance and existence«, it may be explained as a rendering of *hyparxis* assuming that the Arabic author of the *Ġawāmi'* read this in his Greek model. For in the Late Greek Patristic tradition *ousia* and *physis* are not only said to mean the same thing,

13 I leave the Greek term untranslated for the moment as I will refer to it shortly when discussing the Arabic version. Overwien (ibid., 123) translates *praxis* as »Verfassung«.

14 See the Latin version of Johannes Alexandrinus' commentary *On the Sects*, which was probably translated from the Greek, ed. Pritchett, vii and 35-36; and the Lectures *On the Sects* of Agnellus, who probably taught in Latin, *Lectures*, xii-xiii and 62-63.

15 On the Alexandrian summaries of the sixteen books of the Galenic curriculum, see Sezgin, *GAS* III, 140-150; on the summaries of other Galenic treatises, see Savage-Smith, *Galen's lost ophthalmology*, 128-131; on the summary of *On the Sects* in particular, see Pormann, *Alexandrian Summary*; and Overwien, *Medizinische Lehrwerke*, 47-67. The Arabic text has recently been edited with an English translation in Walbridge, *Alexandrian Epitomes* 1, 7-48. For the Arabic of the cited passage, see ibid., 17:

وذلك أن هذا الاسم ، أعني طبعاً أو طبيعةً تتصرف على ثلاثة وجوه ، أحدها جوهر كل واحد من الأشياء ووجوده ، الثاني القوة المدبرة لبدن الحيوان ، والثالث مزاج البدن وعاداته.

16 I use two different English terms to distinguish the two Arabic ones. To indicate that my translation »natural-disposition« renders a single Arabic word (*ṭab*), I write it with a hyphen.

17 For the specific use of *ṭab* in contrast to *ṭabī'a*, see below.

but both are said to indicate *hyparxis*, i.e. existence.¹⁸ A similar identification may also have occurred in the medical milieu, either due to Christian influence or independently, based on philosophical considerations. If this were the case, even the Greek *praxis* in the *Tabulae Vindobonenses* could be a mistransmission for *hyparxis*.¹⁹ The third meaning is rendered more precise by the addition of the concept habit, which is probably meant to exclude the application of the term »nature« to a body whose mixture is out of its normal condition.²⁰ Alternatively, it may imply the ethical concept of an acquired second nature as expressed in the Arabic epitome of Galen's *On Moral Character*.²¹

Different meanings of »nature« are also presented in the commentary to *On the Sects* by the physician, philosopher and Christian theologian Ibn al-Ṭayyib (d. 1043), who commented on a great number of Aristotelian and Galenic treatises making use of late antique commentaries:²²

According to Hippocrates' teaching, »nature« (*ṭabī'a*) is said in four ways:
 in the way of the mixture of every body part – that is to say that some mixtures are good in summer such as (those of) scorpions and serpents and bad in winter; and that is to say that the mixtures of these are by natural-disposition (*bi-l-ṭab*) cold and some others are opposite, such as those over whose mixtures heat prevails;
 in the way of the constitution of every body part – that is to say that the chest of some people is by natural-disposition narrow, and about these Hippocrates says that phthisis quickly comes to them and stays in them due to their minimal ability to inhale air in the degree of hotness, so he links the original hotness to the mixture of their body parts;
 in the way of the powers governing the animal's body – they are those through which the digestion of food is completed, just as Hippocrates says that nature is sufficient in all;
 and in the way of the psychic activities like courage in the lion and fear in the fox as Hippocrates says that the nature of every body part is without instruction – he means that it does what it does without teaching.

18 Cf. Theodore of Raithu, *Praeparatio*, ed. Diekamp, 202.18-21; *Doctrina Patrum*, ed. Diekamp, 40.17-20; John of Damascus, *Institutio Elementaris*, ed. Kotter, 94.26-27, 107.7. I would like to thank Christophe Erismann for having drawn my attention to the Late Patristic tradition in general and in particular to the passage by Theodore, who was the abbot of Raithu in the Sinai peninsula at the end of the sixth and the beginning of the seventh centuries.

19 Unlike Overwien (*Medizinische Lehrwerke*, 172, n. 39), I do not think that *wuḡūd* can be taken as a translation of *praxis*. If one wants to assume that the Arabic author of the *Ġawāmi'* worked on a Greek model very similar to the *Tabulae Vindobonenses*, one may imagine that he, who was most probably a Christian as the great majority of the Graeco-Arabic translators were, may have interpreted the Greek *praxis* according to his religious background.

20 Whether the mention of habit can in any way be linked to the surprising occurrence of »usual power« (*habitudinalis virtus*) in the Latin version of Johannes' commentary on Hippocrates' *Epidemics*, ed. Pritchett, 212.1-2 remains to be ascertained.

21 See Kraus, *Kitāb al-aḥlāq*, 49.ult.:

وقد قلنا إنّ العادة طبيعة ثانية

I would like to thank Almuth Lahmann who has brought this notion of a second nature to my attention.

22 In the only manuscript of the commentary known to survive, Manissa, MS 1772, 13b17-14a11, the Arabic text reads as follows:

والطبيعة على مذهب ابقراط تقال على أربعة أوجه على مزاج كل واحد من الأعضاء وذلك أنّ بعض الأمزاج في الصيف جيّدة بمنزلة العقارب والحيات وفي الشتاء ردية وذلك أنّ أمزجة هذه بالطبع باردة وبعضها بالصد بمنزلة الذي يغلب على مزاجهم الحرارة وعلى خلقة كل واحد من الأعضاء وذلك أنّ بعض الناس صدورهم بالطبع ضيقة وهؤلاء يقولون فيهم ابقراط إنّ السل يسرع إليهم وفيهم لقلّة تمكّنهم من استنشاق هواء بمقدار الحارّ فينسب الحارّ الأصليّ بمزاج أعضائهم وعلى القوى المدبّرة لبدن الحيوان وهي التي يتمّ بها هضم الغذاء بمنزلة ما قال ابقراط إنّ الطبيعة تكفي في الكلّ وعلى الأفعال النفسانيّة كالشجاعة في الأسد والفرع في الثعلب كما قال ابقراط بأنّ طبيعة كل واحد من الأعضاء هي بغير تعلم يريد أنّها تفعل ما تفعله بغير تعليم

Ibn al-Ṭayyib's list shows closer similarities to the Latin versions of the commentaries to *On the Sects* than to the *Tabulae Vindobonenses*, but he is, in particular, close to the meanings of »nature« listed at the beginning of the commentaries to Galen's *Therapeutics to Glaucon*, the fourth treatise in the late antique Galenic curriculum.²³ In the summary or *Ġawāmi'* of *Galen's Book to Glaucon* (*Kitāb Ġālinūs ilā Ġulūqun*), a similar list occurs at the very beginning. This seems to be the reason why two manuscripts enhance the title by adding »on nature« to it, i.e. *Galen's Book to Glaucon On (the Term) »Nature« - Kitāb Ġālinūs ilā Ġlūqun fī (ism) al-ṭabī'a*.²⁴

In Hippocrates' discourse the term »nature« (*ṭabī'a*) conforms to four meanings: One of them is the mixture of the body, the second is the shape of the body, the third is the power governing the body, and the fourth is the motion of the soul.²⁵

The list is then elaborated in a way similar to the one in Ibn al-Ṭayyib's commentary. The existence of such lists in the literature commenting on the most basic Galenic treatises makes it almost certain that the Arabic translators of Galen were greatly aware of the polysemy of the term »nature«, and this awareness must have left traces on their translations.

The person most associated with the Arabic Galen translations is Ḥunayn ibn Isḥāq (d. 873). He was a native speaker of Syriac, spent time away from the Abbasid capital Baghdad, where he had already started his medical career, to improve his Greek and composed original works in Arabic. Ḥunayn was a physician, philosopher and Christian theologian, and translated Aristotelian and Galenic treatises into Syriac and, to a lesser extent, into Arabic.²⁶ His writings, and in particular the *Epistle on the Account of What was Translated of Galen's Books According to his [i.e. Ḥunayn's] Knowledge and of Some which were not Translated* (*Risāla fī ḍikr mā turġima min kutub Ġālinūs bi-ilmihī wa-ba'd mā lam yutarġim*), show him to have been well informed about the philosophical as well as the medical teachings in Alexandria and the Byzantine world.²⁷ About the medical education he had the following to say:

23 See Stephanus, *Commentary*, ed. Dickson, 22-23; and the Arabic versions of the *Ġawāmi'* and of Yahyā al-Naḥwī, for which see Garofalo, *Nature*.

24 I have consulted the following four manuscripts: MSS London, Wellcome Library, Or 62, 1b4-7; Tehran, Kitābhāne-ye Markazī-ye Dānešgāh 4914, 28a2-3; London, British Library, Add 23407, 72b8-10; and Istanbul, Sulaymaniye Kütüphanesi, Fatih 3538 (according to Sezgin's facsimile edition of the *Ġawāmi'*, I, 137.5-6). The first two manuscripts call the summary a *Ġāmi'*, whereas the other two call it a *Ġawāmi'* and add *On Nature* (or *On the Term »Nature«*) to it. The passage quoted above reads:

إسم الطبيعة يجرى في كلام ابقراط على أربعة أوجه أحدها مزاج البدن والثاني هيئة البدن والثالث القوة المدبّرة للبدن والرابع حركة النفس

25 An almost identical list appears in al-Kindī, see n. 2 above.

26 For Ḥunayn's Syriac and Arabic Galen translations, see Watt, *Why*.

27 For the philosophical teaching, see Ḥunayn's *Rare Sayings of the Philosophers* (*Nawādir al-falāsifa*), only extant as excerpts in al-Anṣarī's *Aphorisms of the Philosophers* (*Ādāb al-falāsifa*), ed. Badawī, esp. 41-44. In his *Epistle* (*Risāla*), Ḥunayn provides some information about how the Alexandrians arranged and read the Galenic books, see ed. and trans. Lamoreaux, 14, 18, 20, 24, 30, 38.

These [i.e. the books listed so far²⁸] are the books to the reading of which they used to restrict themselves in the place of medical instruction at Alexandria. They used to read them in the order in which I have presented them. They used to gather each day for the reading of a lesson from them and then endeavor to understand it, even as today our Christian colleagues gather each day in the places of instruction known as the »school« [*al-aškūl* transliterating the Greek *scholē*] for the reading of a lesson from the books of the ancients. As for the other books, they used to read them only individually, each one by himself, after having received training in the ones that I have mentioned, even as our colleagues today read the commentaries on the books of the ancients. (Ḥunayn, *Risāla*, trans. Lamoreaux, 38-40)

Apart from such insights into the Alexandrian teaching activities, the *Epistle* contains short descriptions of all the Galenic treatises Ḥunayn knew of, as well as mentions of the existing translations into Syriac and Arabic and indications of by whom and for whom they were translated.²⁹ Information on the Alexandrian summaries or *Ġawāmi'* of the Galenic treatises is, however, sparse. In this regard the account of the *Epistle* may be complemented with a remark made more than a century later, at the end of the tenth century, by the physician and bio-bibliographer Ibn Ġulġul:³⁰

[The Alexandrians] abridged all of Galen's books and turned them into abstracts and summaries [*al-ġumal wa-l-ġawāmi'*], but without changing the original texts, in order to facilitate for themselves their memorization and study. Ḥunayn the translator found these books both in their original form and in summaries, and this is how they can still be found to this day. (trans. Gutas, *Aspects*, 37, slightly adapted)

Although Ibn Ġulġul does not say so explicitly, his report seems to suggest that Ḥunayn and his circle translated the Galenic originals as well as the Alexandrian summaries. This sits well with the manuscript tradition which ascribes the majority of the Arabic Galen translations to Ḥunayn. There is, however, a caveat: in the same way as original compositions, translations are often ascribed to a more famous translator in order to enhance their authority, importance and prestige. Wrong attributions may occur easily in the case of Ḥunayn's nephew Ḥubayš ibn al-Ḥasan, who also translated Galenic treatises into Arabic and whose translations were, according to the *Epistle*, sometimes corrected by Ḥunayn. This is due to the Arabic *rasm*, i.e. the mere undotted outline of Arabic words, of the name Ḥubayš which

28 Namely *On the Sects*, *The Art of Medicine*, *On the Pulse for Beginners*, *Therapeutics to Glaucón*, *On Bones for Beginners*, *Anatomy for Beginners* [including *On the Dissection of Muscles, of the Nerves and of Veins and Arteries*], *On the Elements according to Hippocrates*, *On Mixtures*, *On the Natural Faculties*, *On the Diseases and Symptoms* [including *Differences of Diseases*, *Causes of Diseases*, *Differences of Symptoms*, and *Causes of Symptoms*], *On Affected Parts*, *The Large Book on the Pulse* [including *Differences of Pulses*, *Diagnosis of Pulses*, *Causes of Pulses*, *Prognosis by Pulses*], *On the Differences of Fevers*, *On Crises*, *On Critical Days*, and *On the Therapeutic Method*. For this and different lists of the sixteen books of the Galenic curriculum, see Overwien, *Medizinische Lehrwerke*, 11-14.

29 The *Epistle* has survived in two different recensions, an earlier (B) and a slightly more recent one (A), and a short epitome (C). According to the recent study by Lamoreaux (in the introduction to his edition of Ḥunayn's *Risāla*, xviii-xxvi), both recensions date to the last few months of Ḥunayn's lifetime and both contain additions which were added, to each version independently from the other, after Ḥunayn's death.

30 For the Arabic text, see the entry on the Alexandrian Sages (*al-Ḥukamā' al-iskandarāniyīn*) in Ibn Ġulġul, *Ṭabaqāt*, ed. Sayyid, 51.5-7.

is particularly close to the *rasm* of the name Ḥunayn. Therefore the name of the nephew may be misread and interpreted as the name of the more famous uncle. Some confusion between Ḥunayn and Ḥubayš may also have taken place in the case of the Arabic translation of *On Diseases and Symptoms* to which we shall now turn.

*The Arabic Translation of On Diseases and Symptoms*³¹

The Title

On Diseases and Symptoms is a compilation of four originally separate Galenic treatises. According to the information provided by Ḥunayn in the *Epistle*, it was the Alexandrians who combined the four treatises under a single title which they chose based on the predominant subject, namely the *Book of the Causes* (*Kitāb al-ʿIlal*). Particularly interesting is Ḥunayn's remark about the title which was given to the book in the Syriac tradition:

As for the speakers of Syriac, they entitled them [the four originally separate treatises] *Causes* [*al-ʿilal*] and *Symptoms* [*al-aʿrād*]. Such a title is not appropriate for the book and quite faulty. If they wanted to fill out the title, they ought to have added *and Diseases* [*al-amrād*]. (Ḥunayn, *Risāla*, trans. Lamoreaux, 24)

This remark is interesting because it clearly indicates that in the ninth century Ḥunayn in no way associated the term *ʿilla* (pl. *ʿilal*, from the root *ʿ-l-l*) with the meaning »disease« which it has in classical as well as in modern Arabic and which is even attested in the Graeco-Arabic translation literature.³² If he had, he may even have interpreted the Syriac title as *Diseases and Symptoms*.³³ In the earliest recension of the *Epistle* (B), the title appears in the form ascribed to the Alexandrians, i.e. as *Book on the Causes* (*Kitāb al-ʿIlal*), whereas the two other recensions (A and C) use the »Syriac« title about which Ḥunayn complained, i.e. *Book on the Causes and Symptoms* (*Kitāb al-ʿIlal wa-l-aʿrād*). In the manuscript tradition,³⁴ the title has undergone some further change and reads *Book on the Things outside Nature known as the Book on the Causes and Symptoms* (*Kitāb fī al-ašyāʾ al-ḥāriġa ʿan al-ṭabīʿa al-maʿrūf bi-kitāb al-ʿIlal wa-l-aʿrād*). The new element appearing in the title, namely »*On the Things outside Nature*« may be explained by the Galenic curriculum of the sixteen books. In the curriculum there are five subgroups of books: (1) four introductory books, (2) four books about the

31 At least two different *Ġawāmiʿ*-versions exist as well. One of them has been edited as a facsimile edition by Sezgin (see vol. II, 130-244); the other one is preserved in the Princeton manuscript that I discuss below and that also contains the Arabic translation of the Galenic original. It is often the case that *Ġawāmiʿ*-versions of the same Galenic treatise differ considerably from one another.

32 See Ullmann, *Wörterbuch* I, 731-733. If Ḥunayn does indeed reject the meaning »disease« for *ʿilla*, its usage in any Galen translation may be taken as an indication against his authorship of this translation.

33 In Syriac, the root *ʿ-l-l* does not mean »disease«. It may do so only due to a later calque from the Arabic, see Maclean, *Dictionary*, 239.

34 See Sezgin, *GAS* III, 89-90 and the two MSS which I have used (on which see below), as well as MS Tehran, *Kitābhāne-ye Markazī-ye Dānešgāh* 4914, fol. 196b.

natural things, (3) six books about the things outside nature, (4) one book about preserving the natural, and (5) one book about treating the unnatural. The *Book on the Causes* is the first listed in the third subgroup, as may be seen in the listing of the sixteen books in a version by Yaḥyā al-Naḥwī.³⁵

Know that the sixteen (books) are divided into two parts. Among them there is that which takes the place of an introduction to the consideration of the theory and practice of the medical art. They are the first four, I mean the *Book on the Sects*, the *Book on the Small Art*, the *Book on the Pulse* and his *Book to Glaucōn*. The (books) considering the theory and practice of medicine are twelve books. Among them, four consider the natural things (*al-ašyā' al-ṭabī'īya*), and they are the *Book on the Elements*, *The Mixture*, *The Natural Faculties* and *The Anatomy*. Six of them consider the things outside nature (*al-ašyā' al-ḥāriġa 'an al-ṭabī'a*), and they are the *Book on the Causes and Symptoms*, *The Aching Places*, *The Great Pulse*, *The Crisis*, *The Days of Crisis* and *The Fevers*. One of them considers that which preserves the natural things, and it is the *Book on the Regimen of the Healthy*, and another consider that which allays the things which are outside nature, and it is the *Book on the Method of Treatment*.

It seems as if the heading of the third subgroup has been transferred to its first treatise and thus given the *Book on the Causes* its new name. This may be interpreted as evidence that the Arabic translations of Galen's treatises were, at least for some time, arranged, copied and transmitted according to the Galenic curriculum. One, unfortunately very late example (mid-seventeenth century) is the Princeton manuscript of our treatise³⁶ which contains precisely the six books on the things outside nature.

As for the four originally separate treatises which were combined to form the *Book on the Causes*, they are listed in Ḥunayn's *Epistle* (B) in the following form: *The Kinds of Diseases* (*Aṣnāf al-amrād*) in one section (i.e. *maqāla* 1 of the composite text), *The Causes of Diseases* (*ʿIlal al-amrād*) in one section (i.e. *maqāla* 2 of the composite text), *The Difference of Symptoms* (*Iḥtilāf al-a'rād*) in one section (i.e. *maqāla* 3 of the composite text) and *The Causes of Symptoms* (*Asbāb al-a'rād*) in three sections (i.e. *maqālāt* 4-6 of the composite text). A tendency towards harmonisation is already detectable in the later recension (A) of the *Epistle* in which the third *maqāla* is entitled *The Kinds of Symptoms* (*Aṣnāf al-a'rād*). It continues in the manuscript tradition in which the title of the second *maqāla* is changed into *Asbāb al-amrād*.³⁷

35 The identity of this Yaḥyā al-Naḥwī or Johannes Grammatikos is still disputed, even if it seems certain that he is not Johannes Philoponus, who is also called Yaḥyā al-Naḥwī in the Arabic tradition. See Gannagé, Philopon, 556-563. The Arabic text of his abridgement (*iḥtiṣār*) of the sixteen books of the Galenic curriculum is preserved in MS London, British Library, Arundel Or. 17 (or Or. 444) and contains at its beginning (2b4-11) the following passage:

اعلم أنّ الستة عشر تنقسم قسمين منها ما يجري مجرى المدخل إلى النظر في علم وعمل الصناعة الطبيّة وهي الأربعة الأول أعني كتاب الفرق وكتاب الصناعة الصغيرة وكتاب النبض وكتابه إلى اغلوقن. والناظرة في علم وعمل الطبّ إتنا عشر كتاباً منها أربعة تنظر في الأشياء الطبيعيّة وهي كتاب الأسطقسات والمزاج والقوى الطبيعيّة والتشريح، وستة منها تنظر في الأشياء الخارجة عن الطبيعيّة وهي كتاب العلل والأعراض والمواضع الأئمة والنبض الكبير والبحران وأيام البحران والحّميات وواحد منها ينظر في ما يحفظ الأشياء الطبيعيّة وهو كتاب تدبير الأصحاء وآخر ينظر فيما يبرد الأشياء الخارجة عن الطبيعيّة وهو كتاب حيلة البرء.

When presenting his abridgement of the *Book on the Causes* further on (fol. 69b3), Yaḥyā al-Naḥwī entitles it *Book on the Causes, Symptoms and Diseases* (*Kitāb al-ʿIlal wa-l-a'rād wa-l-amrād*).

36 On the Princeton manuscript, see below.

37 With regard to this change, one may even speculate that later generations, unlike Ḥunayn, associated the term *ʿilla*, pl. *ʿilal* strongly with the meaning »diseases« and wanted to avoid a phrase which could also be interpreted to mean »the diseases of the diseases« and thus be taken as an example of unintelligible medical jargon.

*The Contents*³⁸

At the beginning of *On Diseases and Symptoms*, i.e. in the originally separate treatise *The Kinds of Diseases*, Galen defines health and disease and distinguishes different classes of diseases either according to the body parts which are affected, i.e. the homoiomerous body parts (e.g. arteries, veins, nerves, flesh) or the organs (e.g. heart, brain, liver, eye), or according to the kinds of affections, i.e. imbalances affecting the homoiomerous parts, and inappropriateness in formation, in the number of parts, in size or in composition affecting the organs. In the treatise *The Causes of Diseases*, Galen examines what may cause excessive heat, cold, dryness and moisture and what may cause diseases affecting the organs in the four ways mentioned in the previous book. He also lists a further class of diseases common to homoiomerous body parts and organs, namely the dissolution of their unity. In the treatise *The Kinds of Symptoms*, Galen aims at distinguishing symptoms in the same way as he has done with diseases and starts by defining various crucial terms, i.e. condition (*ḥāl*), activity (*fiʿl*),³⁹ affection (*āfa*, *ḥadaṭ*, *infiʿāl*), health (*siḥḥa*), disease (*marad*), cause (*sabab*), and symptom (*ʿaraḍ*). Then Galen divides the symptoms into conditions of the body (*ḥālāt al-abdān*), damage to the body's activities (*maḍārr li-l-afʿāl*) and things resulting from the two former such as noises of the body. He establishes two main classes of symptoms. The symptoms of the first class affect the activities of the soul (*afʿāl li-l-nafs*), the psychic (*nafsānī*) activities, and the symptoms of the second class affect the activities of nature (*afʿāl li-l-ṭabīʿa*), the physical or natural (*ṭabīʿī*) activities. For each of these classes, Galen then lists and describes a number of subclasses. These subclasses and their causes are also dealt with at length in *The Causes of Symptoms*, whereby its first section (i.e. *maqāla* 4 of the *Book on the Causes*) focuses on the sense organs, the second (*maqāla* 5) on unnatural movements, and the third (*maqāla* 6) on digestion.

*The Manuscripts Used*⁴⁰

There is still no critical edition of the Arabic translation of *On Diseases and Symptoms*. For my translation samples in the appendix, I have used two manuscripts that are easily accessible in digitised form and that can be dated to different periods of the transmission of the treatise. This confirms that the Arabic text has remained stable and that the manuscripts chosen represent the version normally used.

38 For the Greek text, see Kühn's edition, vol. 6 and 7; and Gundert's edition (with German translation) of *On the Differences of Symptoms*. For an English translation of all four treatises, which thus conveniently covers the extent of the Arabic *Book on the Causes*, see Johnston's translation of Galen, *On Diseases and Symptoms*. There is a second English translation of the *Causes of Diseases* by Grant in Galen, *On Food and Diet*.

39 In the majority of cases, the Arabic translation does not distinguish between *ergon* and *energeia*, which are both translated as *fiʿl*. I have opted to translate *fiʿl* in the sense of *ergon* as »action« and in the sense of *energeia* as »activity«. For a discussion of the Greek terms and their English translation, see Johnston's introduction to his translation of Galen, *On Diseases*, 29-30. There, he cites a passage from *The Method of Treatment* (ed. Kühn, X, 43) in which Galen says: »For it is agreed then, in this case, by all men, not only by doctors but also by those they meet, that it is its [the eye's] action [ἔργον] to see. And whether I say »action« (ἔργον) or »function« (ἐνέργεια) certainly makes no difference now in this case.« The corresponding passage in the Arabic translation of *The Method of Treatment* in MS Paris, BnF, Arabe 2855, fol. 20b5-6, uses only the term *fiʿl* and explains that in Greek the term is expressed by different words.

40 For a list and description of the other existing manuscripts of the Arabic translation, see Overwien, *Orientalische Überlieferung*, 113-115. For the *Gawāmiʿ*, see Sezgin, *GAS* III, 148.

Paris, Bibliothèque nationale de France (BnF), Arabe 2859

The Paris manuscript contains two Galenic treatises: *On the Sects of Medicine for Beginners* (*Fī firaq al-ṭibb li-l-muta'allimīn*) (fols 1-11a), which is, as we have seen, the first treatise of the Galenic curriculum, and *On the Things outside Nature known as the Book on the Causes and Symptoms* (*Fī al-ašyā' al-ḥārīḡa 'an al-ṭabī'a al-ma'rūf bi-kitāb al-īlal wa-l-'arād*) (fols 12a-86b). If the dating to the beginning of the eleventh century suggested by de Slane and Vajda holds, it would be the oldest manuscript of our treatise.⁴¹ However, both scholars also mention that the dates written at the end of the two treatises (fols 11a and 86b) were scratched and replaced by the *hiğrī* date 232, which corresponds to the year 846 or 847 of the Common Era. They further refer to the ownership statement on the title page, which gives the name of Ibn Sīnā and the year 407 h (1016/7). Yet, this Avicennian statement is clearly a forgery.⁴²

The folios in the second half of the manuscripts are in disorder. The correct order can be reconstructed as the following: fols 12b-51b, 68a⁴³-b, 60a-67b, 69a-70b, 52a-59b, 71a-86b.

Princeton, University Library, Islamic Manuscripts, New Series 1532⁴⁴

As mentioned above, the Princeton manuscript contains precisely those six treatises of the Galenic curriculum which consider the things outside nature and thus provides evidence that Galen's writings were copied and read in accordance with this curriculum until the mid-seventeenth century. Interestingly, the manuscript contains not only the Arabic translations of each of the six treatises, but also the corresponding Alexandrian summaries, i.e. *Ĝawāmi'*. The arrangement of the texts is remarkable in that each section (*maqāla*) of the translation of a Galenic original is followed immediately by its respective *Ĝawāmi'*. This seems to indicate that the *Ĝawāmi'* played an important role in the studying of the original Galenic treatises.

41 De Slane, *Catalogue*, 515; Vajda, *Notices manuscrits Arabe* 2845-2874, 39. See the digital reproduction of the manuscript's microfilm at <https://gallica.bnf.fr/ark:/12148/btv1b11002054f>. However, neither de Slane nor Vajda give any argument for their dating. Should they have relied on the ownership statements, their dating would have to be rejected as these statements have been tampered with.

42 A consultation of the manuscript in Paris clearly showed that part of the ownership statement has left traces of ink on the facing page, which is of European paper and recent date. Therefore, it cannot have been composed by Ibn Sīnā in the eleventh century. Also suspicious is the fact that Ibn Sīnā's name is spelt Ḥusayn and not al-Ḥusayn, the established form. Gacek (*Arabic Manuscripts*, 109) lists this particular ownership statement as an example of a forgery. The same must also hold true for the two other ownership statements which are found on the title page of the Paris manuscript, i.e. one of Buḥtišū' and another of 'Alī b. Ibrāhīm.

43 In the upper margin of 68a the last sentences of 51b23-28 are repeated in a script similar to the one of the main body of the text. This probably indicates that this misordering was introduced rather early, most likely before the manuscript came to Paris (for additions made there would probably look rather different).

44 See the digital reproduction of the manuscript's microfilm at <http://arks.princeton.edu/ark:/88435/cz30pw240>.

The contents of the manuscript are as follows:⁴⁵

- *The Book on the Things outside Nature known as the Book on Causes and Symptoms (Kitāb fī l-ašyā' al-ḥāriġa 'an al-ṭabi'a al-ma'rūf bi-kitāb al-ʿIlal wa-l-a'rāḍ)* (fols 1b-85b)⁴⁶
- *Galen's Book on the Knowledge of the Inner Places when Harm occurs in them, known as the Book on the Affected Parts (Kitāb Ġ[ālīnūs] fī Ta'arruf al-mawāḍi' al-bāṭina idā ḥadaṭa bihā āfa wa-huwa al-ma'rūf bi-Kitāb al-A'ḍā' al-ālima)* (fols 85b-198a)
- *Galen's Book on the Pulse (Kitāb Ġ[ālīnūs] fī l-Nabḍ)* (fols 198a-297a)⁴⁷
- *Galen's Book on the Kinds of Fever (Kitāb Ġ[ālīnūs] fī Aṣnāf al-ḥummayāt)* (fols 297b-328b)
- *Galen's Book on Crisis (Kitāb Ġ[ālīnūs] fī l-Buḥrān)* (fols 329a-378b)
- *Galen's Book on the Days of Crisis (Kitāb Ġ[ālīnūs] fī Ayyām al-buḥrān)* (fols 378b-411a)

The colophon at the end of the third treatise *On the Pulse* (fol. 297a) gives the date *Ġumādā al-Ṭānī* 1016 *hiġrī*, i.e. May or June 1651 of the Common Era. As the entire manuscript is written by the same hand, it must date in its entirety to the mid-seventeenth century.

The Translator

According to the earliest version (B) of the *Epistle*,⁴⁸ Ḥunayn translated the *Book on the Causes* for the physician Buḥtišū'. Into which language is not indicated, but as the *Epistle* states on five other occasions that Ḥunayn translated something for Buḥtišū' into Syriac, this is probably what happened in our case as well. The slightly younger version (A) of the *Epistle* has an addition according to which Ḥubayš translated the six sections of the treatise for Abū l-Ḥasan 'Alī ibn Yaḥyā into Arabic. The information in the short epitome (C) is ambiguous as the one in version (B) for it only states that the treatise was translated by Ḥunayn without indicating the language into which it was translated. In the extant manuscripts the translation is ascribed to Ḥunayn, if to anyone.⁴⁹

45 For a preliminary description of the manuscript, see Mach and Ormsby, *Handlist*, items 76, 92, 505, 509 and 520. The second treatise is not listed.

46 In the illuminated headpiece, the title of our treatise is given in a slightly distorted form as *Kitāb 'ilal a'rāḍ Ġālīnūs*. The Arabic text of the Galenic original is not only divided into six sections (*maqāla*), but also into smaller chapters (*bāb*) which are not indicated in the Paris manuscript. The *Ġawāmi'* of the six sections are found on fols 10a-13b, 21b-23a, 31b-32a, 44a-49b, 60a-65a, 78b-85b.

47 The last two sections of the *Book on the Pulse* are not followed by their corresponding *Ġawāmi'*, but are preceded by two very short summaries (of some lines) called *ġumal*.

48 For an Arabic edition of B (Istanbul, Aya Sofya 3590) and an English translation, see Ḥunayn, *Risāla*, ed. Lamoreaux, 24-27; for the version A (Aya Sofya 3631), see *Risāla*, ed. Bergsträsser, 11-12; for C (Aya Sofya 3593), see *Risāla*, ed. Käs.

49 See Sezgin, *GAS* III, 89. MS Paris, Bibliothèque nationale, Arabe 2859 mentions Abū Zayd Ḥunayn ibn Iṣḥāq al-ʿIbādī al-mutaṭṭabbib as the translator on the title page (fol. 12a) and at the beginning and end of each of the six sections of the book. MS Tehran, Kitābhāne-ye Markazi-ye Dānešgāh 4914 indicates Abū Zayd Ḥunayn ibn Iṣḥāq as the translator at the beginning of the treatise and at end of sections 5 and 6. MS Istanbul, Süleymaniye Kütüphanesi, Aya Sofya 3591 also ascribes the translation to Ḥunayn, see Ritter and Walzer, *Arabische Übersetzungen* 812 [14], whereas MS Princeton, University Library, Islamic Manuscripts, New Series 1532 does not mention the name of the translator.

Translating the Term »Nature«

The Method Applied in Studying the Translation

The *Thesaurus Linguae Graecae* lists about one hundred occurrences of *physis*, i.e. *physis* (12 times), *physin* (18), *physeōs* (42), *physei* (21) and the only occurring plural form *physesi* (1), in the four Galenic treatises that have been brought together in the Arabic *Book on the Causes*, not taking into account the almost double that number of occurrences of *kata physin* (98 times) and *para physin* (85 times).⁵⁰ I have listed the 94 Greek occurrences (in Kühn's edition cited from the TLG and with Johnston's English translation) and their corresponding Arabic translations (transcriptions based on the Paris and Princeton manuscripts followed by my very literal English translation) in the appendix. Each quotation is limited to an extent, by which the meaning of the cited occurrence of »nature« should become clear. In a few cases, it was possible to study a longer passage with several similarly translated occurrences of *physis*, thus providing more context to the reader. In such instances, the text is numbered according to the number of occurrences, e.g. »text (16-18)« which contains three instances of *physis*. The numbering follows the Greek because the Arabic translator sometimes adds an Arabic term for nature where it is only implied in the Greek.⁵¹ However, as the present study focuses on the Arabic renderings, the texts are arranged according to the Arabic terms that are used to render *physis* and thus divided into the following six groups: *ṭabī'a*⁵² (texts 1-43), *ṭab'* (texts 44-76), *ṭabī'i* (text 77), *quwwa* (texts 78-80), *ḡawhar* (text 81) and no corresponding Arabic term (texts 82-94). Larger groups are further subdivided according to the grammatical functions in which the Arabic terms occur. Within each group or subgroup, the passages follow their sequence in *On Diseases and Symptoms*. Texts 95-98 present some interesting examples in which the *Book on the Causes* has *ṭabī'a*, where the Greek reads something else.⁵³

Results and Conclusions

The most important and obvious difference between the two main Arabic terms used to express »nature« is that *ṭabī'a* is employed when referring to an active aspect of nature, either as the agent undertaking some activity (texts 1-12) or as the possessor of, for example, an activity or instruments (texts 13-27). *ṭab'*, on the other hand, is mostly used in phrases functioning as adverbials. This suggests that the translator chooses *ṭabī'a* for rendering the Galenic meaning of the power governing the animal – for which he also uses the more explicit *quwwa* (power) in texts (78) and (80) – and *ṭab'* for expressing the meaning of the body's mixture. This suggestion is further confirmed by the translator himself, for when Galen says that his reader should understand »nature« in a particular occurrence as power governing the animal, the translator renders it by *ṭabī'a*, not *ṭab'* in text (19). This sits well with one particular instance in which the translator distinguishes surprisingly sharply between *ṭabī'a* and *ṭab'*

50 The phrase *para physin* is mostly translated as *ḥārīḡ 'an al-ṭabī'a*, see texts (21-22), (24) and (95), but also as *ḥārīḡ 'an al-ṭab'*, see text (61); and *kata physin* as *bi-l-ṭab'*, see text (96), although other renderings also occur, for example by reformulation, see text (95), or by employing the adjective *ṭabī'i*, see the second occurrence in text (96). A detailed study would probably result in interesting findings, yet is beyond the scope of this article.

51 See, for example, text (1-2) in which two occurrences of *physis* correspond to four instances of *ṭabī'a*.

52 See the two occurrences of the plural form *ṭabā'i* in texts (31) and (34).

53 An exhaustive documentation of these occurrences is certainly worthwhile and may bring highly interesting results. In some cases, the Arabic may attest to a different Greek text than the one edited by Kühn.

within one passage, i.e. in text (38-39) which is immediately followed by text (62-63). However, *ṭabī'a* is also used to refer to bodily mixtures, namely when employed in the grammatical construction »the nature (*ṭabī'at*) of something« in texts (28), (29), (32), (33), (35)-(39), (41)-(43). In two of these examples, i.e. texts (35) and (36) the older Paris manuscript has *ṭabī'a* where the Princeton manuscript has *ṭab'*. This may indicate that the distinction between the two terms grew stronger over time and that later copyists changed the translation accordingly. At an early stage of the transmission of Galenic material, the terms seem to have been used interchangeably, as attested in the above-mentioned *Ġawāmi'* of *On the Sects*.⁵⁴

In texts (30), (31), (34) and (40), the same »*ṭabī'at* of something« refers to the substance or essence of something, whereas in text (59) it is *ṭab'* which refers to that very meaning. Therefore one must conclude that apart from the distinction between *ṭabī'a* and *ṭab'*, the translator does in general not attempt to clarify the polysemy of nature in his model by introducing different terms, the only notable exceptions being *quwwa* (twice)⁵⁵ and *ḡawhar* (once). In text (34), *physis* is replaced by the hendiadys »*ḡawāhir* (substances) and *ṭabā'i'* (natures)«. Another interesting hendiadys occurs in text (46), which talks about the soul's nature as its »*ṭab'* and *naḥīza* (condition)« as if the Galenic dictum that the soul follows the mixtures of the body was somehow implied.

There is one instance, text (9), in which the translator first translates »nature« as *ṭabī'a* and then adds a second occurrence of *ṭabī'a* without any counterpart in the Greek, yet in a different meaning. Whereas the first *ṭabī'a* most probably refers to the power governing the animal, the second one seems to refer to the composition, i.e. the mixture of a body part. If this interpretation is correct, in this case the translator does not clarify the polysemy of the Galenic text but enhances it by adding another occurrence of *ṭabī'a* with a different meaning than immediately before.

Interesting are also some examples in which nature occurs in the Arabic but not in the Greek. Some of these instances may be explained by the assumption that the translator read a different Greek text than the one preserved today. In text (96), for example, the Arabic reads *ṭabī'a* where the Greek has *zōon*. As the Arabic reading here coincides with that of the Greek-Latin translation,⁵⁶ there are two independent witnesses which make it plausible that, at least in some Greek manuscripts, *tēs physeōs* was read instead of *tou zōou*.⁵⁷

Most interesting are the cases in which the translator decides to omit the term »nature« and to render the Greek differently. In four of them, i.e. texts (89)-(91), he probably considers nature to refer to the essence of something and feels that translating it would not add any informational value to the phrase. These omissions can thus be seen as a simplification and clarification of his Galenic model. In seven other cases, i.e. texts (82)-(88), Galen most probably speaks about personified, i.e. demiurgic Nature, a principle that he equates with

54 See above, n. 15.

55 The third occurrence of *quwwa* in text (79) is difficult to interpret. Maybe the Arabic translator had a different Greek text.

56 See Gundert's edition of Galen, *Über die Verschiedenheit*, 254, critical apparatus to line 11, which gives the reading of the Greek-Latin translation as »nature« but makes no mention of the different reading in the Arabic tradition.

57 Although the possibility that the two traditions interpreted the Galenic text in the same way must be considered as well. Only the Arabic tradition deviates further from the preserved Greek text, talking about the »power and care of nature« as opposed to those of the animal at the end of the passage.

the Demiurge, especially in his *On the Usefulness of the Parts*.⁵⁸ In text (87) he states that the nostrils are »passages of respiration invented by Nature«. This mention of nature is omitted in the Arabic, although immediately before, see text (4), nature (*ṭabīʿa*) is credited with having conceived of coughing and sneezing as a strategy by which to expel irritating matter. The reason for the omission in text (87) seems to be that nature considered as inherent in the body of a living being may well be thought of as making the animal cough or sneeze as in text (4), whereas it is difficult to assume that this nature invented the nostrils and their activity, as claimed in text (87). Similarly, in text (84) the Arabic translator omits the mention of nature, but adds »wisdom and kindness« in its stead, which may be interpreted by the readers of the translation as referring to God. In the Arabic translation of *On the Usefulness of the Parts*, which is also ascribed to either Ḥunayn or Ḥubayš, these two terms are regularly mentioned when Galen talks either about the Demiurge or demiurgic Nature, which is omitted there as well. So the additional mention of »wisdom and kindness« in text (84) may be an indication that the translator interprets »nature« there as the demiurgic principle.⁵⁹ In text (48) where the Aristotelian-Galenic dictum that Nature does nothing in vain is referred to, the Arabic translator chooses to rephrase the text slightly and to translate *bi-l-ṭabʿ*. Similarly, in text (53) he replaces the notion that nature has given something to the animal's parts with the formulation that the body parts are made that way by natural-disposition. In this case, the translation is particularly striking as in the immediately preceding phrase, the translator inserts *ṭabīʿa* to render »physical impulse« (*hormē physikē*), apparently having the natural power governing the animal in mind. Using *ṭabʿ* is thus another strategy for removing any mention of demiurgic Nature from the Arabic *Book on the Causes*.

The suppression of demiurgic Nature may either indicate that the Christian translators of Galen did not want to refer to a demiurgic principle other than God or that they considered it a necessary change given their mainly Muslim audience and, in particular, the Muslim patrons and sponsors of the various translations. The intellectual profile of the translators and their readers that emerges from these findings is that they did not have any issues with natural powers said to govern the body or with bodily mixtures acting according to the natural qualities of the elements constituting these mixtures.⁶⁰ Yet they did not agree with nature as

58 See, for example, May, the modern English translator of Galen's *On the Usefulness of the Parts* into English, who remarks (ibid., 11): »It is significant that whereas Galen usually calls this wise, creative agency »Nature« (ἡ φύσις, a feminine noun and concept), he frequently also refers to it, with nothing to indicate any change in his thinking, as the »Creator« (ὁ δημιουργός, a masculine). I have been content to preserve this idiosyncrasy in translation in spite of the strangeness to our English ears of referring to one and the same person sometimes as »he« and sometimes as »she«.« For a similar assessment, see Kovačić, *Begriff der Physis*, 210: »In Galens Texten, insbesondere in seiner Schrift *De usu partium*, wird die Natur als ein Agens mit kreativer Rolle außerhalb des lebendigen Organismus personifiziert. Sie hält den Organismus als immanente Physis (φύσις) zusammen und kontrolliert, formt und gestaltet ihn schon bei seinem Beginn. ... Dasselbe weise, kreative – also »Natur« (ΦΥΣΙΣ) genannte – Agens nennt Galen [sic] oft, ohne eine Sinnänderung, »Demiurg« (δημιουργός).«; and Schiefsky, Galen's teleology, 371: »In *De usu partium* and other works, Galen describes the construction of the human body as the result of the effort of a supremely intelligent and powerful divine Craftsman or Demiurge, who exerts foresight or providence (*pronoia*) on behalf of living things. Galen also frequently attributes the construction of the body to a personified nature or *physis*, which is said to be »craftsmanlike« (*technikē*), i.e. capable of art or craft (*technē*).«

59 In any case, it attests to the remarkable consistency with which demiurgic Nature was suppressed in the Galen translations done by Ḥunayn and his circle and on which phenomenon I am currently preparing an extensive study. On some preliminary results, see Wakelnig, *Medical knowledge*.

60 It would have been difficult to translate Galen, and especially *On Diseases and Symptoms*, replacing these Galenic notions of nature as they are fundamental to his medical theory.

a guiding principle on a higher level, either as the Neoplatonic universal nature or as a divine agent. However, much more research needs to be done before precise conclusions can be drawn. The study of the translations of all the occurrences of *physis* in the *Book on the Causes* presented here is a first step in this direction.

Appendix

If not stated otherwise, the Arabic transcription is based on the readings of the Paris manuscript (ب). Interesting deviating readings of the Princeton manuscript (بر) are indicated in square brackets. The orthography of *hamza* is adapted to modern standards.

I. *PHYSIS* → *ṬABĪʿA*

I. A. *al-ṭabīʿa* as acting

Text (1-2)

Paris 28b6-12, Princeton 17b21-26

فنقول إنّ جميع ما هذا سبيله من الأمراض يحدث عند ما تدفع الطبيعة في كلّ وقت الفضل من أشرف الأعضاء وأنفسها إلى ما هو دونهم في الشرف والنفاسة وقد قال ذلك أيضاً غيري خلق كثير ممن تقدمني إلا أنّهم لم يذكروا كيف تدفع الطبيعة هذا الفضل وعلى أيّ وجه تفعل ذلك. فإنّا إن قلنا قولاً مطلقاً بأنّ الطبيعة تدفع كلّما لا ينتفع به عن الأعضاء الشريفة النفيسة إلى الأعضاء التي ليست بشريفة ولا نفيسة كنا قد جعلنا الطبيعة [للطبيعة بر] فكرة وعقلاً ونحن نجد عياناً أنّ البحرات الجيدة إنّما تكون في الأمراض بدفع الطبيعة.

We say that all diseases whose course is like this occur when nature expels, at all times, the superfluity from the nobler and more precious body parts to that which is below them in nobility and preciousness. Among those who have preceded me, many people other than me have also already said that, except that they have not mentioned how nature expels this superfluity and in what way (nature) does that. So, if we say in a general way that nature expels whatever is not useful from the noble and precious body parts to the parts that are neither noble nor precious, we are attributing thought and intellect to nature. We clearly find that the good crises in diseases happen through expulsion by nature.

ἅπαντα γὰρ τὰ τοιαῦτα νοσήματα τῆς φύσεως ἀποτιθεμένης ἐκάστοτε τὸ περιττὸν εἰς ἀκυρώτερα μόρια γίνεσθαι. τοῦτο μὲν δὴ καὶ ἄλλοις ἔμπροσθεν εἴρηται πολλοῖς· ὅστις δὲ ὁ τρόπος ἐστὶ τῆς ἀποθέσεως, οὐκ ἔτ' εἴρηται· λογισμὸν γὰρ τίνα καὶ νοῦν τῇ φύσει δώσομεν, ἐὰν ἀπλῶς αὐτὴν ἀποτίθεσθαι φῶμεν ἐκ κυρίων μορίων εἰς ἄκυρα πᾶν ὅτιοῦν ὑπάρχον μὴ χρηστὸν. ἀλλ' ὅτι μὲν ἐν τοῖς νοσήμασιν αἱ ἀγαθαὶ κρίσεις ὑπὸ τινος τοιαύτης γίνονται δυνάμεως ἐναργῶς φαίνεται· (*Caus. Morb.*, K VII, 23.9-17)

For all such diseases occur on each occasion when nature sets aside what is superfluous to less important parts. This too has certainly been said before by many others, whereas what the manner of the setting aside is, has not yet been spoken of. We shall be attributing a certain reasoning power and purpose to Nature,⁶¹ if we say that it simply sets aside anything that is not useful from the important to the unimportant parts. But that in diseases the beneficial crises come about through some such capacity is clearly seen. (trans. Johnston, 170)

61 Here (170, n. 48) Johnston adds a note to his English translation, remarking that »In this context, and in what follows, I have taken »nature« to be personified.« Unfortunately he provides no further explanation except for a not very helpful reference to Brock's footnote 4, pp. 12-13 in his *De facultatibus naturalibus*, where it says: »As already indicated, there is no exact English equivalent for the Greek term *physis*, which is a principle immanent in the animal itself, whereas our term »Nature« suggests something more transcendent; we are forced often, however, to employ it in default of a better word«. In any case, Johnston's understanding differs from that of the Arabic translator who suppresses the term »nature« when he interprets it as personified, demiurgic Nature.

Text (3)

Paris 61a19-20

لأن الطبيعة فيهنّ مشتاقة لقبول المنى لشدة الشهوة وباللذة

For nature in [this, i.e. the uterus] longs for the reception of sperm due to the intensity of desire and by means of pleasure.

Princeton 40b10-11

لأن للطبيعة قوة تدفع المنى نفسه وقبول المنى بشدة الشهوة وباللذة

For nature has a power, which expels the sperm itself, and a reception of the sperm with intense desire and pleasure.

συνῆψε γὰρ ἡ φύσις ὑπερέχουσαν ἐπιθυμίαν τε ἅμα καὶ ἡδονὴν τῇ τε προέσει καὶ τῇ συλλήψει τοῦ σπέρματος. (*Caus. Symp.* I, K VII, 127.3-4)

For Nature has joined powerful desire and pleasure at the same time to the emission and the gathering of the sperm. (trans. Johnston, 225)

Text (4)

Paris 52b22-28, Princeton 53b17-22

وأما في السعال فلأن الرئة لا تقدر أن تتحرك مثل هذه الحركة فتدفع بها عن نفسها الشيء المؤذي لها احتالت الطبيعة بأباً من أبواب المعونة في ذلك حكيماً جداً وذلك لأنه لما كان الهواء الذي يجتذب من خارج إنما يدخل في [إلى بر] أقسام قصبية [و الحلق و بر] الرئة وكانت هذه الأقسام غضروفية صلبة لا يمكنها [و للذي في طبقها بر] أن ينقبض على الشيء المحتقن فيها لطفت الطبيعة في هذا [و الشيء بر] الذي احتالته من خروج الهواء بقوة وشدة وهو الذي يسميه سعالاً ومن هذا الجنس أيضاً العطاس فإن العطسة إنما لطفت فيها الطبيعة لتدفع بها ما يجتمع من الفضول في المنخرين

As far as coughing is concerned, since the lungs are not able to move like this and to expel the thing harming them from themselves in this way, nature has exercised one very wise sort of help with regard to that. That is, when the air, which is attracted from outside, enters into the parts of the lung's tube and when these parts are cartilaginous, hard and cannot contract upon the thing which is collected in them, nature has acted kindly by granting this help that (nature) has exercised by an expulsion of air through power and intensity. It is that which is called a cough. To this kind sneezing belongs as well. For nature has acted kindly by granting the sneeze, so that by it (nature) expels the waste that has been assembled in the nostrils, ...

... κατὰ δὲ τὰς βῆχας ἐτέρως. οὐ γὰρ ἐγχωρεῖ τῷ πνεύμονι τοιαύτην κινήθῃν κίνησιν ἀπίσασθαι τὸ λυποῦν, ἐξευρούσης τῆς φύσεως ἐπικουρίαν τινα περιττῶς σοφῆν. ἅτε γὰρ εἰς τὰς τραχείας ἀρτηρίας εἰσπνεομένου τοῦ ἕξωθεν ἀέρος, αἱ δὲ χονδρώδεις τέ εἰσι καὶ σκληραὶ καὶ συστέλλεσθαι περὶ τὸ ἐνυπάρχον αὐταῖς ἀδύνατοι, σφοδρὰν τινα τοιαύτην ἐπετεχνήσατο τοῦ πνεύματος ἕξω φορὰν, ἣν ὀνομάζουσι βῆχα. τούτου τοῦ γένους ἐστὶ καὶ ὁ πταρμὸς, ὑπὲρ τοῦ διώσασθαι τὰ κατὰ τὰς ῥίνας, ... (*Caus. Symp.* II, K VII, 168.16-169.7)

... although with coughing it is otherwise. Because it is not possible for the lung to expel the distressing agent by initiating such a movement, Nature has invented a certain extraordinarily ingenious aid. Seeing that the external air is inhaled into the bronchial tubes, which are in fact cartilaginous and hard and cannot be contracted around what is contained in them, [Nature] has contrived a certain violent passage of the breath to the outside, which they call a cough. Sneezing is also of this class, by which it pushes out things in the nostrils, ... (trans. Johnston, 248)

Text (5)

Paris 53a24-28, Princeton 54a17-20

فَأَمَّا إِذَا كَانَ فِي أَقْسَامِ الرِّئَةِ جِسْمٌ مِنَ الْأَجْسَامِ فَلَأَنَّ هَذِهِ الْأَقْسَامَ غَضْرُوفِيَّةً صَلْبَةً لَا تَقْدِرُ لِهَذَا [بِهَذَا] السَّبَبِ أَنْ تَنْقَبِضَ عَلَى
[عَنِ] الشَّيْءِ الْمُحْتَقَنِ [الْمَخْتَصِ بِر] فِيهَا احْتِاجَتْ [احْتِاجَتْ بِر] الطَّبِيعَةُ إِلَى أَنْ تَخْرُجَ الْهَوَاءَ إِخْرَاجًا قَوِيًّا فَتَحْدُثُ لَذَلِكَ [بِذَلِكَ]
السَّبَبِ [بِ] السَّعَالِ وَذَلِكَ يَكُونُ فِي الْأَلَاتِ الَّتِي بِهَا تَفْعَلُ الطَّبِيعَةُ مَا تَفْعَلُهُ مِنْ إِخْرَاجِ التَّنَفُّسِ إِخْرَاجًا عَظِيمًا قَوِيًّا وَهُوَ الْإِخْرَاجُ الَّذِي
نَسْمِيهِ نَفْخَةً

As for when there is some kind of body in the parts of the lungs, then, because these parts are cartilaginous, hard and are therefore not able to contract upon the thing which has collected in them, nature stands in need to expel the air forcefully. So it therefore brings forth a cough. That takes place in the instruments by which nature vigorously and forcefully enacts the expulsion of respiration. It is the expulsion that we call breath.

ἐπειδὴν τι κατὰ τὰς τραχείας ἀρτηρίας περιέχεται σῶμα, χονδρώδεις καὶ σκληρὰς οὖσας, καὶ διὰ τοῦτ' ἀδυνατούσας περιστέλλεσθαι τῷ περιεχομένῳ, σφοδρὰν τὴν τοῦ πνεύματος ἔξω φεραν ἢ φύσις ἐργάζεται βῆχα κινουῦσα. γίνεται δ' αὕτη διὰ τῶν αὐτῶν ὀργάνων, δι' ὧν ἐπιτελεῖ τὰς μεγάλας τε ἅμα καὶ σφοδρὰς ἐκπνοὰς, ἃς ἐκφυσῆσεις ὀνομάζομεν, ... (*Caus. Symp.* II, K VII, 171.4-10)

Whenever some body is contained in the bronchial tubes, which are cartilaginous and hard and because of this are unable to contract themselves around what is contained [in them], Nature brings about a violent impulse of the breath to the exterior, setting in motion a cough. This occurs through those same organs by which it effects the great and violent exhalations which we call ›emissions of breath‹, ... (trans. Johnston, 249)

Text (6)

Paris 54b23-24, Princeton 55b2

والطبيعة تبعث الحيوان على مثل هذه الحركة عند ما تريد أن تحتال في تحليل الفضول البخارية

Nature incites the animal to such a movement when (nature) wants to exercise skill in the dissolution of vaporous residues.

ἀλλ' εἰς τὴν τοιαύτην κίνησιν ἢ φύσις ἐξορμᾷ τὰ ζῶα διαπνοὴν τοῖς ἀτμώδεσι περιττώμασι μηχανωμένη. (*Caus. Symp.* II, K VII, 178.2-4)

But Nature incites animals to such a movement, contriving an outlet for the vaporous superfluities. (trans. Johnston, 252)

Text (7)

Paris 55b26-28, Princeton 56a20-21

ومنها أيضاً أنّ من به الحمى المحرقة إذا حدث به النافض انقضت حماه لأنّ المرّة التي كانت محتقنة في العروق تدفعها الطبيعة على جهة البحران وتنفذها في العضل واللحم حتى تصير بها إلى الجلد

Among [the fevers] it also happens that, if a shivering fit occurs in him who has burning fever, his fever disappears.⁶² For nature expels the bile, which has collected in the veins, in the manner of a crisis and causes (the bile) to pierce the muscles and the flesh until it has led (the bile) to the skin.

ἀλλὰ καὶ ὑπὸ καύσου ἐχομένῳ ρίγεος ἐπιγενομένου λύσις, Ἱπποκράτης φησὶ, τῷ τὴν τέως ἐν ταῖς φλεψὶν ἀλωμένην χολὴν ὑπὸ τῆς φύσεως ἀπωθεῖσθαι κριτικῶς ἐπὶ τὸ δέρμα διὰ τῶν σαρκῶν. (*Caus. Symp.* II, K VII, 182.14-17)

But also, in someone having a bilious remittent fever (*kausos*), there is lysis when a rigor supervenes, Hippocrates says, because the bile, which until then was caught up in the veins, is preferentially driven out by Nature through the flesh to the skin. (trans. Johnston, 255)

Text (8)

Paris 57b14-16, Princeton 57b13-15

وإنّما قال هذا لأنّ الطبيعة في مثل هذا النافض تتحرّك لدفع الشيء المؤذي فإذا هي فُهرت وهُزمت حارت وطفنت فبهذا السبب صار هذا العارض فتّالا

He says this because in such a shivering fit nature moves to expel the harmful thing. Then, when it is overcome and defeated, it perishes and expires. For this reason, this occurrence becomes fatal.

ἐν γὰρ τοῖς τοιοῦτοις ρίγεσιν ὥρμησε μὲν ἡ φύσις ἐπὶ τὸ διώσασθαι τὰ λυποῦντα, νικηθεῖσα δὲ καταπίπτει καὶ κατασβέννυται, καὶ διὰ τοῦτο ἐστὶν ὀλέθριον τὸ σύμπτωμα. (*Caus. Symp.* II, K VII, 190.8-11)

For in such rigors, Nature sets in motion distressing things for the purpose of expulsion but, having been overcome, it collapses and is quenched, and because of this the symptom is fatal. (trans. Johnston, 258)

62 The Arabic version omits the mention of Hippocrates and renders his aphorism slightly differently than in its existing Arabic translation by Ḥunayn, see Hippocrates, *Aphorisms*, ed. Tytler 37, IV.57:

إذا كانت بإنسان حمى محرقة فعرضت له نافض انحلت بها حماه.

Text (9)

Paris 77a27-b3, Princeton 70a12-16

لأن هذا يوجب إجاباً ظاهراً أن تكون الطبيعة هي السبب في حدوث العلة وكان الأصلح لهم فيما أحسب أن يضيفوا [يضيفون بر] السبب في حدوث العلة إلى الغذاء مع أنه ليس يجب أيضاً بسبب أن تشبهه [تشبهه ب: تشبيهه بر] العضو المغتذي للغذاء بطبيعته فعل له وتشبهه [وتشبيهه بر] الغذاء وتغيره انفعال منه ان يقال بهذا السبب إنه لا يمكن أن يكون المنفعل أيضاً في الفاعل بعض الشيء ولو كان في غاية القلة والصغر

For this makes it clearly necessary that nature is the cause for the occurrence of the disease, yet with regard to what I consider, it would be most suitable for them to attribute the cause for the occurrence of the disease to the nutriment. Since the body part's assimilation of the nutriment to its own nature is its action and the assimilation and change of nutriment are an affection caused by it, it is still not necessary to say that because of that it is impossible that the affected may also produce something in the agent, even if it is of utmost insignificance and smallness.

γενήσεται γὰρ οὕτω γε τοῦ πάθους ἢ φύσις αἰτία, πολὺ δ' ἦν ἄμεινον, οἶμαι, τὴν τροφήν αἰτιασθαι. οὐ μὴν οὐδ' ὅτι τὸ μὲν ὁμοιοῦν ἑαυτῷ τὴν τροφήν ἔργον ἐστὶ τοῦ τρεφομένου, τὸ δ' ὁμοιοῦσθαί τε καὶ μεταβάλλεσθαι πάθος τῆς τροφῆς, διὰ τοῦτο οὐκ ἀδύνατόν ἐστι τῷ πάσχοντι περὶ τὸ ποιοῦν ἀντιδραῖσά τι, κἄν ἢ σμικρότατον. (*Caus. Symp.* III, K VII 228.15-229.3)

For in this way at least, nature will become the cause of the affection (*pathos*), whereas it were far better, I think, to attribute the cause to the nutriment. Although, certainly, the action of what is nourished is to make the nutriment like itself, whereas the affection (*pathos*) of the nutriment is to be assimilated and changed, it is not impossible because of this for what is acted upon to act against what affects it, even if only very slightly. (trans. Johnston, 280-281)

Text (10)

Paris 78b16-17, Princeton 71a21-22

وقد يكون ذلك أيضاً مراراً كثيرة من قبل الطبيعة عندما تريد أن تدفع وتنفض عنها الأشياء المؤذية لها

That is also often due to nature when it wants to expel and shake off⁶³ from it things which are harmful to it.

ένίστε δὲ καὶ δι' αὐτὴν τὴν φύσιν ἐκκρίνουσαν τὰ λυποῦντα. (*Caus. Symp.* III, K VII, 234.11-12)

... and sometimes also as a result of Nature itself expelling distressing things. (trans. Johnston, 283)

63 Here the translator uses a hendiadys.

Text (11)

Paris 80b5-9, Princeton 72b27-73a3

فنقول إن مجيء [يجيء بر] الفضول الى المعدة والبطن من فوق قد تكون مراراً كثيرة عندما تدفع الطبيعة الفضل لقوتها واستطاعتها [واستطهارها ب: - بر] عليه وربما كان ذلك [بر] بسبب ضعف الطبيعة إذا هي لم تقدر أن تحمل الشيء الذي ينتفع به فضلاً عن غيره والطبيعة تدفع الفضل في البخارات وكثيراً ما تفعل ذلك أيضاً في وقت الصحة بمنزلة ما تعرض للنساء في كل شهر

We said that the arriving of the residues towards the stomach and the belly from above often happens when nature pushes the residue with its power and its capacity away from it. Sometimes that is due to nature's weakness, when it is not able to carry the thing that is useful, let alone something else. Nature expels the residue in crises and often it also does that in times of health, e.g. what befalls women every month.

φέρεται τοίνυν ἄνωθεν εἰς τὴν γαστέρα πολλάκις μὲν εὐρωστία τῆς φύσεως ἐκκρινούσης τὸ περιττὸν, ἔστι δ' ὅτε ὑπὸ ἀρρωστίας οὐδὲ τὸ χρηστὸν βαστάζειν δυναμένης. ἐκκρίνεται μὲν οὖν τὸ περιττὸν ἔν τε ταῖς κρίσεσι καὶ κατὰ τὸν τῆς ὑγείας ἐνίοτε χρόνον, ὡσπερ ἀμέλει καὶ ταῖς γυναιξὶν ἐφ' ἐκάστῳ μηνί. (*Caus. Symp.* III, K VII, 243.3-8)

Accordingly, the superfluity is often carried from above the stomach by the strength of the natural separation, although sometimes owing to weakness it is not even able to bear what is useful. The superfluity is then separated in crises and sometimes in a time of health, as it is, of course, in women each month. (trans. Johnston, 288)

Text (12)

Paris 85b3-4, Princeton 78a18-19

وطبيعة البدن أيضاً على ما وصفت وربما اعانت على تولد الأعراض وربما خالفت ومنعت من كونها

According to what I have described, the nature of the body also sometimes helps the generation of symptoms and sometimes hinders their coming to be.

καὶ ἡ φύσις δὲ, ὡς εἴρηται, τοῦ ἀνθρώπου συντελεῖ τε καὶ ἀντιπράττει τῇ γενέσει τῶν συμπτωμάτων. (*Caus. Symp.* III, K VII, 270.19-271.2)

Also the nature, as has been said, of the person acts with or acts against the generation of symptoms. (trans. Johnston, 301)

I. B. al-ṭabī'a as possessor

Text (13)

Paris 36b7-9, Princeton 25b6-7

فنقول إنه ينبغي لنا أن نقسم ضروب [بر:ضرب] الفعل إلى جنسين أولين إذ كانت الأصناف الأول من أصناف الأفعال اثنين وذلك أن منها أفعال للنفس ومنها أفعال للطبيعة

We say that we must divide the sorts of activity into two primary genera, since the primary kinds of the kinds of activities are two. For to them belong activities of the soul and activities of nature.

τμητέον δὴ ταύτην εἰς δύο τὰ πρῶτα γένη, διότι καὶ τῶν ἐνεργειῶν αὐτῶν δύο εἰσὶν αἱ πρῶται διαφοραί. αἱ μὲν γὰρ ψυχῆς, αἱ δὲ φύσεως εἰσι. (*Symp. Diff.*, K VII, 55.8-11)

This [i.e. the activity] one must now divide into two primary classes because the primary differentiae of the activities themselves are also two in number. They are those of the soul and those of nature. (trans. Johnston, 188, slightly adapted)

Text (14)

Paris 38b18, Princeton 27a19-20

وذلك أن الأعضاء التي هي آلات للطبيعة قد [فقط بر] يعرض فيها هذه الثمانية الأعراض فقط

That is to say that the body parts which are instruments for nature are only befallen by these eight symptoms ...

ὅσα μὲν γὰρ τῆς φύσεως μόνης ἐστὶν ὄργανα, τοῖς ὀκτώ συμπτώμασιν ἀλώσεται μόνοις. (*Symp. Diff.*, K VII, 64.1-2)

For those that are of the physical alone will be afflicted with eight symptoms only, (trans. Johnston, 193)

Text (15)

Paris 43b1-2, Princeton 31a15-16

إذ كان كل واحد منها أخرى وأولى بأن يكون عملاً من أعمال الطبيعة وفعلًا من أفعالها من أن يكون مضرّة

Since each of these [things in whose occurrence and generation there is usefulness for the body] is more appropriate and better suited for being one of the works of nature and one of its activities⁶⁴ rather than being a damage.

64 It is puzzling that the Arabic translator, who had just before, see text (96), distinguished between *ergon* and *energeia* by rendering them with two separate terms, namely *'amal* and *fi'l*, now applied the hendiadys *'amal wa-fi'l* to render *ergon* alone.

ἔργον γὰρ φύσεως ἕκαστον αὐτῶν μᾶλλον ἢ βλάβη τις ὑπάρχει. (*Symp. Diff.*, K VII, 82.16-17)

For each of these [i.e. things occurring for the purpose of benefit – E. W.] is an action of nature rather than an injury. (trans. Johnston, 201)

Text (16-18)

Paris 66a6-13, Princeton 49b25-50a2

وأما التشنج والرعدة والاختلاج والنافض والقشعريرة والفواق والسعال والجشاء [و النافض ب] والعتاس والتمطي والتأوب وتقصص الأسنان فلجميعها [فجميعها بر] جنس عام يشتمل عليها وهو الحركة الرديّة ويخالف بعضها بعضاً في خصال أولها وأوكدها أنّ منها ما هي أفعال للطبيعة تفعلها عندما تضطرّها وتستكرهها بعض الأسباب [الأستنان بر] المرضيّة إلى أن تتحرك ومنها ما يلحق الأمراض وليس للطبيعة في حدودها شيء من المعونة ومنها ما يكون منهما جميعاً إذا إنّما فعلاً معاً أعني المرض والطبيعة

As for spasm, tremor, convulsion, shivering fit, shiver, hiccup, coughing, belching, sneezing, stretching, yawning and chattering of teeth, they all have a common genus which contains them, namely defective movement. They differ from one another in [their] properties. The first and most certain of [their differing properties] is that among [these movements] there are actions which belong to nature and which (nature) enacts when some causes of disease force it and compel it to move, and among them there is what adheres to diseases and nature has, with regard to its occurrence, no sort of help. To them belong that which is caused by both of them together, when they act together, I mean disease and nature.

Σπασμὸς δὲ καὶ τρόμος, καὶ παλμὸς, καὶ ρίγος, καὶ φρίκη, καὶ λυγμὸς, καὶ βήχες, ἐρυγαί τε καὶ πταρμοὶ, καὶ σκορδινισμοὶ, καὶ χάσμαι, καὶ τρισμοὶ, κοινὸν μὲν ἅπαντα γένος ἔχει κινήσιν πλημμελῆ· διενήνοχε δ' ἀλλήλων ἐνὶ μὲν καὶ πρώτῳ μάλιστα τῷ τὰ μὲν αὐτῶν ἔργα φύσεως εἶναι βιαίως ἀναγκαζομένης κινεῖσθαι πρὸς τινος αἰτίου νοσηροῦ, τὰ δὲ νοσώδεσιν ἔπεσθαι διαθέσεσιν, οὐδὲν εἰς τὴν γένεσιν αὐτῶν συμπραττούσης φύσεως· ἔνια δὲ ὑπ' ἀμφοῖν ἐνεργούντων γίνεσθαι, τοῦ τε νοσήματος ἅμα καὶ φύσεως ... (*Caus. Symp.* II, K VII, 147.1-148.1)

Spasm (*spasmos*) and tremor (*tromos*), palpitation (*palmos*), rigor (*rigos*), shivering (*phrike*), hiccup (*lygmos*), coughing (*bex*), belching (*eruge*), sneezing (*ptarmos*), stretching (*skordinismos*), yawning (*chasme*) and rasping (*trusmos*) all have a common class, that of disordered movement. They do, however, also differ among themselves, especially in one primary way, in that some of them are actions of a nature compelled to move violently by a disease-making cause, whilst others [of the class of disordered movement] follow disease conditions, nature contributing nothing to their genesis. Some, however, occur in which both are operative, that is disease and nature simultaneously. (trans. Johnston, 238)

Text (19)

Paris 66a12-14, Princeton 50a2-3

وإذا أنا قلت لك في هذا الكلام طبيعة فإفهم عني [علّ ب] أنّ هذا الاسم [اسم بر] أصرّفه على كلّ قوّة تُدبّر البدن إن كانت ممّا فعله [تفعل ب] بإرادتنا وإن كانت تفعل بلا إرادتنا

When I say to you »nature« in this discourse, then do understand that I employ this term to mean every power which governs the body, whether what it enacts is due to our will or whether it is acting without our will.

ἀκούειν δὲ ἀξιῶ σε τοῦ τῆς φύσεως ὀνόματος ἐν τῷ λόγῳ τῷδε κατὰ πάσης δυνάμεως τῆς διοικούσης τὸ ζῶον, εἴτε κατὰ τὴν ἡμετέραν προαίρεσιν, εἴτε καὶ χωρὶς ταύτης. (*Caus. Symp.* II, K VII, 148.2-4)

I would expect you to understand the term »nature« in the following discussion as relating to every power governing an animal, whether in accordance with our choosing, or apart from this. (trans. Johnston, 238, slightly adapted)

Text (20)

Paris 66b2-3, Princeton 50a13-14

فما دام البدن يجري مجرى الطبيعة [طبيعته بر] فليس من حركات قوّة من هذه القوى شيء عرض

As long as the body proceeds in the course of nature, nothing among the movements of any of these powers is a symptom.

ἐπειδὴν μὲν νόμῳ φύσεως διοικῆται τὸ ζῶον, οὐδεμία κινήσις οὐδεμιᾶς αὐτῶν ἐστὶ σύμπτωμα. (*Caus. Symp.* III, K VII, 149.5-7)

When an animal is governed by the law of nature, no movement of any one of these is a symptom. (trans. Johnston, 239)

Text (21-22)

Paris 53a3-6, Princeton 53b25-27

فأمّا الآن فلنأخذ [فانا ناخذ بر] في الشيء الذي ينتفع به في هذا الباب الحاضر وهو أن ما كان من الحركات على مثل هذه الحال فهي أفعال للطبيعة إلا أنّها تدخل في عداد الأعراض الخارجة عن الطبيعة لمكان الأسباب التي تضطرّ الطبيعة إلى أن تتحرّك مثل هذه الحركة

As for now, let us begin the matter which is helpful in this present discussion, and that is that the movements according to this condition are actions belonging to nature, except that they enter into the number of the symptoms outside nature because of the reasons which force nature to move in such a way.

τὸ δ' εἰς τὰ προκείμενα χρήσιμον ἤδη λαμβάνωμεν, ὡς αἱ τοιαῦται κινήσεις ἔργα μὲν φύσεως ὑπάρχουσιν, ἐν δὲ τοῖς παρὰ φύσιν ἀριθμοῦνται συμπτώμασι, διὰ τὰς ἀναγκαζούσας οὕτω κινεῖσθαι τὴν φύσιν αἰτίας. (*Caus. Symp.* II, K VII, 169.12-15)

Let us accept for now what is useful to the matters put forward – that such movements are actions of Nature, although numbered among the symptoms contrary to nature because they are causes compelling Nature to move in this way. (trans. Johnston, 248)

Text (23)

Paris 53a13-15, Princeton 54a6-8

وَأَمَّا فِي الْمَعْدَةِ فَعَارِضُ الْقَيْءِ ظَاهِرٌ مَعْرُوفٌ وَكَثِيرٌ مِنَ النَّاسِ يَقُولُ فِي هَذِهِ أَيْضًا إِنَّهَا لَيْسَتْ بِأَفْعَالٍ لِلطَّبِيعَةِ [الطَّبِيعَةُ بَر] بَلْ إِنَّمَا هِيَ أَعْرَاضٌ فَقَطْ

As with regard to what concerns the stomach, the occurrence of vomiting is clear and known, but many people also say about these (occurrences) that they are not actions belonging to nature, but only symptoms.

Ἐπὶ δέ γε τῆς γαστρὸς ἐναργέστερον ἤδη τὸ κατὰ τοὺς ἐμέτους ἐστὶ, καὶ πολλοὶ καὶ τούτους οὐκ ἔργον φύσεως, ἀλλὰ συμπτώματα εἶναι φασιν. (*Caus. Symp.* II, K VII, 170.8-10)

At least in the case of the stomach, what relates to vomiting is now more clear, yet many also say these are not actions of nature but symptoms. (trans. Johnston, 249, slightly changed)

Text (24)

Paris 53a15-19, Princeton 54a12-13

وَفِي الْأَعْرَاضِ سَبَبٌ خَارِجٌ عَنِ الطَّبِيعَةِ هُوَ الْمَحْرُكُ لِلطَّبِيعَةِ

In symptoms, a cause outside nature is the mover of nature.

... τῶν συμπτωμάτων, ἐν οἷς αἰτίον τι παρὰ φύσιν ἐπὶ τὰς τοιαύτας ἐνεργείας ἐξορμᾷ τὴν φύσιν. (*Caus. Symp.* II, K VII, 170.10-16)

... symptoms in which some cause contrary to nature incites nature to such functions. (trans. Johnston, 249, slightly changed)

Text (25)

Paris 56a20-21, Princeton 56b10-11

بَلْ قَدْ تَدْفَعُ أَيْضًا عَنْ هَذِهِ فَضُولِهَا فِي كُلِّ يَوْمٍ دَفْعًا بَيْنًا بَلَا أَذَى وَبَلَا [وَلَا بَر] مَشَقَّةً بِالتَّحْلِيلِ الَّذِي لَا يَدْرِكُهُ الْحَسُّ مَا دَامَ الْبَدَنُ يَجْرِي عَلَى مَجْرَى طَبِيعَتِهِ

Yet (this expulsive power) also expels from these (organs) their residues every day in a plain expulsion without pain and without hardship through dissolution, that the senses do not perceive, as long as the body proceeds according to the course of its nature.

ἀλλὰ καὶ τούτων ὁσημέραι πᾶν ἀποκρίνει τὸ περιττὸν ἀλύπως τε καὶ κατὰ τὴν ἄδηλον αἰσθήσει διαπνοήν, ὅταν γε νόμῳ φύσεως διοικῆται τὸ ζῶον. (*Caus. Symp.* II, K VII, 184.12-15)

Rather, every day it also separates from these things the entire excess without disturbance and during a transpiration imperceptible to sense – whenever, that is, the animal is governed by the law of nature. (trans. Johnston, 255-256)

Text (26)

Paris 77b3-5, Princeton 70a16-18

لأننا قد بينا نحن في الموضوع الذي ذكرنا فيه هذه الأشياء خلاف هذا ولم نبين ذلك نحن فقط بل قد بينه أيضاً كثير من الفلاسفة الذين تقدموا ممن كان [تقدموا ممن كان ب: كانوا بر] حاذقاً [حذاقاً بر] بتفسير [بتغيير ب] أفعال الطبيعة كلها وقبولها لفعل غيرها

We have already made clear a difference to that in the passage in which we have mentioned these things. Not only we have made that clear, but also many of the preceding philosophers, who were proficient in interpreting all the actions of nature and its reception of the action of others, had already made it clear.

αὐτὸ γὰρ δήπου ἐναντιώτατον ἐν τοῖς περὶ τούτων λογισμοῖς ἐπεδείξαμεν οὐχ ἡμεῖς μόνον, ἀλλὰ καὶ τῶν φιλοσόφων ὅσοι δεινότατοι τῶν ὄλων τῆς φύσεως ἐνεργειῶν τε καὶ παθῶν ἐξηγηταὶ γεγόνασι. (*Caus. Symp.* III, K VII, 229.3-6)

For surely we have shown quite the opposite of this in the discussions of these matters, and not only us, but also the most able of the philosophers who have been interpreters of all the functions and affections (*pathos*) of nature. (trans. Johnston, 281)

Text (27)

Paris 80a23-26, Princeton 72b18-20

وذلك أن نوع هذا الصوت نفسه يدل على هذين جميعاً أعني أنه بسبب أن حدوثه إنما هو عن حركة الطبيعة صار يدل على اندفاع الفضل وبسبب أنه مع قرقرته صار يدل على أن الفضل المندفع رطب

That is that the species of this sound itself indicates these two together, I mean that because its production is through the motion of nature it indicates the discharge of the superfluity, and because of its being with its rumble it indicates that the expelled superfluity is moist.

ἡ γὰρ ἰδέα ψόφου ταῦτ' ἄμφω προμηνύει, διότι μὲν ἐπὶ κινουμένη γίγνεται τῇ φύσει, τὴν ἔκκρισιν ἐπαγγελλομένη· ὅτι δὲ καὶ μετὰ βορβορυμοῦ, τὴν ὑγρὰν· (*Caus. Symp.* III, K VII, 242.1-5)

For the kind of sound indicates both these things in advance, signifying separation because it occurs in the case of a natural movement, but moisture in that it occurs along with *borborygmos*. (trans. Johnston, 287)

I. C. ṭabī‘at of someone or something

Text (28)

Paris 16b8-10, Princeton 5a2-4

وقد يحدث في البدن على ذلك المثل بعينه أمراض رطبة ويابسة عندما يتغير جملة طبيعة الأجرام البسيطة إلى الرطوبة أو إلى
اليبس من غير أن ينصب إليها من غيرها شيء من المواد

In the body there occur humid and dry diseases according to that very example when the entirety of the nature of the simple bodies is changed towards humidity or towards dryness without any material thing flowing towards them.

κατὰ δὲ τὸν αὐτὸν τρόπον τὰ θ’ ὑγρὰ καὶ ξηρὰ νοσήματα γενήσεται, τῆς ὅλης φύσεως ἀλλοιουμένης τῶν σωμάτων, οὐκ ἔξωθεν οὐσίαν τινὰ εἰς ἑαυτὰ δεχομένων. (*Diff. Morb.*, K VI, 852.12-15)

In the same way, moist and dry diseases will arise when there is a change in the entire nature of the bodies but they receive no external substance into themselves. (trans. Johnston, 143)

Text (29)

Paris, 24b13-14, Princeton 14b12-14

متى لم يكن للحركة من المقدار والقوة ما يتغير طبيعة المفاصل والعضل لم يحدث لها أعياء

... when the movement does not have the extent and the power to change the nature of the joints and muscles, no fatigue is produced for them.

... ὡς εἰ μὴ πλείων εἶη καὶ ἰσχυροτέρα τῆς τῶν ἄρθρων τε καὶ μυῶν φύσεως, οὐκ ἂν ποτε κοπώσειεν αὐτὰ, ... (*Caus. Morb.*, K VII, 7.3-4)

... that if the movement were not greater or stronger than the natural constitution of the joints and muscles, these would not then be fatigued at all. (trans. Johnston, 162)

Text (30)

Paris, 34b15-16, Princeton 24a9-10

وأما الشيء الذي يدخل جزء من طبيعته في الشيء الذي يكون فيقال انه سبب كونه [بكونه بر]

As for the thing, a part of whose nature enters into a thing which is generated, it is called a cause of its generation.

τὸ δ' ἐκ τῆς ἑαυτοῦ φύσεως εἰσφερόμενόν τινα τῷ γινομένῳ μοῖραν τῆς γενέσεως αἴτιον αὐτοῦ λέγεται. (*Symp. Diff.* K VII, 47.14-16)

That which from its own nature contributes some part of the genesis [of something] by its occurrence is called its cause. (trans. Johnston, 185)

Text (31)

Paris, 39a7, Princeton 27b6-7

لكن يجيد نظره ويتثبت في نفس [بعض بر] طبائع الأمور

But to ameliorate his inspection and to verify the very natures of the matters ...

ἀλλ' εἰς αὐτὴν ἀποβλέποντα τῶν πραγμάτων τὴν φύσιν. (*Symp. Diff.* K VII, 65.6)

... but to focus instead on the actual nature of the matters. (trans. Johnston, 193)

Text (32)

Paris 44b8, Princeton 32b20

... متى استحال وتغيّر عن طبيعته ...

... when it is transformed and changed from its nature

τὸ μὲν οὖν τρηῖμα κατὰ τέσσαρας τρόπους ὑπαλλάττεται τῆς αὐτοῦ φύσεως, ... (*Caus. Symp.* I, K VII, 88.3-4)

The aperture, then, changes its nature in four ways: ... (trans. Johnston, 207)

Text (33)

Paris 68a17-18, Princeton 39a6

من قبل أنه [إنما بر] ضدّ لجوهر البصر صار تجمعه جمعاً عتيفاً مستكرهاً بأكثر يحتاج إليه للرجوع إلى طبيعته

Due to being opposite to the substance of vision its coming together becomes violent and forceful more than is necessary for the return to its nature

ἐναντίον γὰρ ὑπάρχον τῇ τῆς ὄψεως οὐσία συνάγει βιαιότερον αὐτὴν, ἢ ὡς εἰς τὴν φύσιν ἐπανάγειν. (*Caus. Symp.* I, K VII, 119.5)

... for being opposite to the substance of vision it draws it together more violently than [allows it to] return to its nature. (trans. Johnston, 222)

Text (34)

Paris, 60a23-24, Princeton 39b26-27

وقد ذكرنا جواهر هذه الطعوم وطبائعها في المقالة الرابعة من كتابنا في [كتابنا في ب: كتاب بر] قوى الأدوية المفردة

We have already mentioned the substances and natures of these flavours in the fourth section of our book on the powers of simple remedies.

εἴρηται δὲ περὶ τῆς φύσεως αὐτῶν ἐν τῷ τετάρτῳ περὶ τῆς τῶν ἀπλῶν φαρμάκων δυνάμεως, (*Caus. Symp.* I, K VII, 123.3)

There has been discussion about [*physis* – not translated by Johnston, E. W.] these things in the fourth [book] on the capacity of simple remedies, (trans. Johnston, 223, slightly adapted)

Text (35)

Princeton 64b12, Princeton 43a19

وكَلِّمَا كَانَ الطَّعَامُ فِي طَبِيعَتِهِ⁶⁵ [طبعه بر] أَرْطَبَ كَانَ نَوْمُهُ أَكْثَرَ

The more food is in its nature humid, the more sleep (it gives)

... καὶ ὅσω περ ἂν ὑγροτέρα τὴν φύσιν ὑπάρχη, τοσοῦτω μᾶλλον ὑπνοῦσιν. (*Caus. Symp.* I, K VII, 141.12)

... and the more this should be moist in nature the more they sleep ... (trans. Johnston, 233)

Text (36)

Paris 69b23-24, Princeton 52a13

وهذه الأعضاء [+ هي الأعضاء بر] التي هي في طبيعتها [طبعها بر] لينّة لين يمكنها معه [- بر] أن تقبل الانبساط والانقباض

Softness enables these body parts which are in their nature soft to receive the extension and contraction together with (softness).

ἔστι δὲ δήπου ταῦτα πάντα μαλακὰ τὴν φύσιν, ὡς διάστασιν τε καὶ συνίζησιν ὑπομένειν δύνασθαι. (*Caus. Symp.* II, K VII, 160.12)

65 The reading has been corrected by a later hand and may originally have read *t-b-‘t-h*.

These are, of course, all those that are soft in nature, such as to be able to undergo distention and collapse. (trans. Johnston, 244)

Text (37)

Paris, 70a13-14, Princeton 52a27

ونعمل على أنه أحد شيئين إما خلط من الأخلاط وإما شيء من طبيعة الهواء

We aim at its being one of two things, either any mixture or something belonging to the nature of air.

διττὴν δ' εἶναι ταύτην εἰκὸς, ἥτοι χυμὸν ἢ ἀερώδη τινὰ φύσιν. (*Caus. Symp.* II, K VII, 161.15)

The probability in this case is twofold; either a humour or something of an airy nature. (trans. Johnston, 245)

Text (38-39)

Paris 54b2-4, Princeton 55a11-12

وذلك لأن هذا المزاج يصير بمنزلة الطبيعة المكتسبة في كل واحد من الأجسام التي يصيبها ذلك وليس من الأجسام شيء ينبغي أن [ينبغي أن ب: - بر] يتأذى بطبيعته لأن ...

That is because this mixture occurs as the acquired nature in every one of the bodies which are affected by that. Among the bodies there is nothing which may be harmed by its nature. ...

γίνεται γὰρ οἷον φύσις τις ἐπίκτητος ἢ τοιαύτη κρᾶσις ἐκάστῳ τῶν οὕτω διατεθέντων. οὐδὲν δὲ τῶν σωμάτων ὑπὸ τῆς ἑαυτοῦ φύσεως ἀνιάται, ... (*Caus. Symp.* II, K VII, 176.5-8)

For such a mixing occurs in each of the parts so disposed as if it were some additional nature. No body is distressed by its own nature. (trans. Johnston, 252)

Text (40)

Paris, 55b10-13, Princeton 56a8-10

ومن غير أن تتمثل في ذلك أيضاً بمثال قد نجد في نفس طبيعة الأمر أن السبب إذا كان يتحرك كان أذاه أكثر من أذى السبب الساكن وخاصة إذا كانت حركته في جسم حساس على ما وصفنا هاهنا

We may find in the very nature of the matter that when the cause is moved, its pain is more intense than the pain of a stationary cause, and specifically, when its movement is in a perceiving body according to what we have now described.

ἀλλὰ καὶ χωρὶς παραδείγματος ἐξ αὐτοῦ τοῦ πράγματος τῆς φύσεως ἐνεστὶν ἐξευρεῖν, ὡς τὸ κινούμενον αἴτιον ἀνιαιρότερον τοῦ μένοντος, ὅταν γε διὰ τῶν αἰσθητικῶν σωμάτων ἢ φορὰ γίνηται, καθάπερ ἐν ὀφθαλμοῖς ὑπόκειται νῦν. (*Caus. Symp.* II, K VII, 181.11-15)

But also, apart from the example, it is possible to discover from the nature of the matter itself that a cause which is moving is more distressing than one which is stationary whenever, at least, what is borne occurs through perceiving bodies, as was just now proposed in relation to the eyes. (trans. Johnston, 254)

Text (41)

Paris 56b22, Princeton 57a5-6

فإذا كانت الفضول المؤذية للطبيعة رطبةً ...

If the residues harmful to nature are humid

ἐπειδὴν μὲν οὖν ὑγρὰ τὰ λυποῦντα τὴν φύσιν ὑπάρχει, (*Caus. Symp.* II, K VII, 187.3)

Whenever, then, the distressing things are moist in nature, ... (trans. Johnston, 257)

Text (42)

Paris 58a25-26, Princeton 58a16

وانطفأؤها يكون بسبب طبيعة العارض لأن كونه وحدوثه إنما هو بتسلط [بانبساط بر] البرد

Its extinction is due to the nature of the occurrence, for its generation and happening are through the prevailing of coldness.

τὸ μὲν γὰρ σβέννυσθαι δι' αὐτὴν τοῦ πάθους γίγνεται φύσιν ἐν τῷ καταψύχεσθαι τὴν γένεσιν ἔχοντος· (*Caus. Symp.* II, K VII, 193.12-14)

For quenching occurs due to the very nature of the affection (pathos) which has its genesis in the cooling, ... (trans. Johnston, 260)

Text (43)

Paris 86a24-25, Princeton 78a11-12

ومن قبل طبيعة البدن ومن قبل سرعة حسه وإبطاء حسه

... and due to the nature of the body, and due the velocity and slowness of its sensation ...

... καὶ τὴν τῆς τοῦ ἀνθρώπου φύσεως εὐαίσθησίαν τε καὶ δυσαισθησίαν, (*Caus. Symp.* III, K VII, 270.9-10)

... and the strong or reduced sensibility of the nature of the person ... (trans. Johnston, 301)

II. *PHYSIS* → *ṬAB'*

II. A. *ṭab'uhu* as grammatical subject

Text (44)

Paris, 51a27-51b1, Princeton 38a25-6

وهذا قول الفاضل فلاطون وأما الفاضل ابقرط وقد [وان بر] كان قبل الفاضل فلاطون فأثته قال إنَّ الألم إنما يحدث بمن [بأن بر] يتغير طبعه ويفسد

And this is the statement of the noble Plato. As for the noble Hippocrates, who was already before the noble Plato, he said that pain befalls him whose natural-disposition is changed and corrupted.

οὕτω μὲν ὁ Πλάτων· ὁ δὲ Ἱπποκράτης ἔτι παλαιότερος ὦν, τοῖς τὴν φύσιν, ἔφη, διαλλαττομένοισι καὶ διαφθειρομένοισιν αἱ ὀδύνηαι γίνονται. (*Caus. Symp.* I, K VII, 115.14)

Thus, Plato. Hippocrates, who was still more ancient, said that in those who, with respect to the natural state, are changed and corrupted, pains occur. (trans. Johnston, 220)

Text (45)

Paris 59a13-16, Princeton, 58b26-59a1

لإنَّ هذا العارض إنما يكون فيه حسَّ الفضل الذي تحدث عنه الحكمة فقط وإنَّما قلنا الفضل الذي تحدث عنه الحكمة لأنه ليس يمكن أن يُسمى بغير هذا الاسم [الإنسان بر] إلا أن يشاء إنسان أن يُسميه فضلاً بورقياً أو فضلاً مالحاً أو فضلاً مرّاً فإنَّ طبعه [طعمه ب] هو على هذا

For in this symptom there is the sensation of superfluity, from which alone the itching is produced and we say »the superfluity from which itching is produced«. For it is not possible to call it any other than this name unless someone wishes to call it nitrous superfluity or salty superfluity or bitter superfluity, because its nature⁶⁶ is accordingly.

αἴσθησις γὰρ ἐν τούτῳ τῷ συμπτώματι μόνον ἐστὶ περιττωμάτων κνησμωδῶν· οὐδὲ γὰρ ὀνομάσαι δυνατὸν ἄλλως αὐτὰ, πλὴν εἰ νιτρῶδη καὶ ἀλμυρά τις ἢ πικρά προσαγορεύειν ἐθέλοι, τοιαύτη γὰρ ἡ φύσις αὐτῶν. (*Caus. Symp.* II, K VII, 197.1-4)

For in this symptom the sensation is of superfluities associated with itching alone, in that one cannot give a name to these in any other way unless one wishes to speak of something alkaline or salty or sharp for such is their nature. (trans. Johnston, 261)

66 The Paris manuscript reads »taste«.

II. B. al-ṭab‘a as an adverb

Text (46)

Paris 58a24-25, Princeton 58a15-16

وذلك عندما تكون النفس ضعيفة الطبع والنحيظة فيعرض لها عارض قويّ شديد فتطفئ بغتةً وتختنق

That (also occurs) when the soul is weak in its natural-disposition (*tab‘*) and condition (*nahīza*) and something strong and intense befalls it, then it is suddenly extinguished and strangled.

... ὅταν ἀσθενὲς φύσει ψυχάριον ἰσχυρῶ πάθει κατασχεθὲν ἀθρόως κατασβεσθῆ τε καὶ καταπνιγῆ. (*Caus. Symp.* II, K VII, 193.10-12)

Accordingly, some have also died in sudden fears, whenever the soul, weak in nature and possessed suddenly by a strong affection (*pathos*), is quenched and smothered. (trans. Johnston, 260)

Text (47)

Paris 73a1-2, Princeton 66a13-14

وما كان منه تضرب فيه الحموضة فحدوثه عن الأغذية الباردة البلغمية الطبع

(Of that is also) that in which acidity moves and its occurrence is from the cold foodstuff phlegmatic in natural-disposition

ὀξύδεις δὲ ἐπὶ τοῖς ψυχροτέροις φύσει καὶ φλεγματοδεστέροις. (*Caus. Symp.* III, K VII, 209.1-2)

... the acidic [›corruptions‹ occur – E. W.] in the case of those that are colder in nature and more phlegmatic. (trans. Johnston, 270)

II. C. bi-l-ṭab'i – *adverbial*

Text (48)

Paris 17a25-28, Princeton 5b12-14

وذلك أنا إذا كنا قد بينا أنه لم تُجعل واحدة من هذه الخصال بالطبع عبثاً ولا باطلاً بل إنما جُعلت كلها ليكون العضو يفعل ما يفعله
بجملة أجزائه فعلاً أجود وأوثق

That is, since we have already made clear that none of these properties is by natural-disposition made in vain and futile, but all of them are made so that the body part acts as it acts through the entirety of its parts in a better and safer way, ...

ἐπειδὴ γὰρ ἀπεδείχθη μηδὲν τούτων εἰκῆ γεγονέναι πρὸς τῆς φύσεως, ἀλλὰ πάνθ' ἔνεκα τοῦ βέλτιον ἢ ἀσφαλέστερον ἐνεργεῖν τὸ σύμπαν ὄργανον, ... (*Morb. Diff.*, K VI, 856.2-5)

For since it has been shown that none of these [parts] has been created by nature without a purpose, but in all cases for the better or safer functioning of the whole organ, ... (trans. Johnston, 144-145)

Text (49)

Paris 18b8-9, Princeton 6b11

عندما يحدث في العضو الأملس بالطبع خشونة أو في العضو الخشن بالطبع ملوسة

... when roughness occurs in a by natural-disposition very smooth part or smoothness in a by natural-disposition rough part.

..., τοῦ μὲν φύσει λείου τραχυνθέντος, τοῦ δ' αὖ τραχέος λείου γενομένου. (*Morb. Diff.*, K VI, 861.6-7)

... when what is by nature smooth becomes rough, or again, when what is by nature rough becomes smooth. (trans. Johnston, 147)

Text (50)

Paris 29b13-14, Princeton 18b16-17

وذلك أن من كانت ساقاه بالطبع منتصبين على استقامة بأكثر ممّا ينبغي ...

That is he whose two legs are by natural-disposition straight according to a straightness which is more than it should be ...

οἷς μὲν γὰρ ὀρθότερα τοῦ δέοντός ἐστι φύσει, ... (*Caus. Morb.*, K VII, 28.3-4)

In those whose legs are straighter than is natural, ... (trans. Johnston, 172)

Text (51)

Paris 46b25-26, Princeton 34b9-10

وذلك لأن الرطوبة الجليديّة تكون في هاؤلاء على غاية الصفاء والنقاء [والبقاء بر] بالطبع

That is because the ice-like humour is in these by natural-disposition at the utmost clarity and purity

καθαρώτατον μὲν γὰρ τούτοις ἐστὶ φύσει τό τε κρυσταλλοειδὲς ὑγρὸν (*Caus. Symp.* I, K VII, 97.7-9)

For in these the crystalline humour is very pure in nature, (trans. Johnston, 211)

Text (52)

Paris 63b9, Princeton 42b2

إمّا بسبب علّة فيهما [بهما بر] وإمّا بالطبع

... either because of a cause in these two or by natural-disposition

κατὰ τι πάθος, ἢ καὶ φύσει (*Caus. Symp.* I, K VII, 136.17)

... either in some affection (*pathos*) or by nature (trans. Johnston, 231)

Text (53)

Paris 54b17-20, Princeton 55a24-27

وفي جميع هذه الأعراض وأشبابها [واسبابها بر] يخبر [بحس بر] من يعرض له باختلاف في بدنه واضطراب فيتمطون ويمدون جميع أعضائهم بحركة من حركات الطبيعة وهي حركة شبيهة بهذه التي قلنا قبل أنّها جعلت لجميع [بجميع بر] أعضاء البدن بالطبع لتنجوا بها من الأذى وتبقى على سلامتها.

In all these symptoms and their likes whoever is affected by them tells about discordance and disturbance in his body. So (these affected people) stretch and expand all their body parts by one of nature's movements, which is a movement similar to the one about which we have said before that it has been made for all the body parts by natural-disposition so that by it they may be saved from harm and maintain their health.

ἐπὶ μὲν δὴ τοῖς τοιούτοις ἅπασι συμπτώμασιν ἀνωμαλίας τέ τινος αἰσθάνεσθαί φασι καὶ σκορδινῶνται καὶ πάντα διατείνονται τὰ μόρια κατὰ τινα φυσικὴν ὀρμὴν, ὅποιαν ἐλέγομεν ἀρτίως ἅπασι δεδόσθαι τοῖς τοῦ ζώου μέρεσιν ὑπὸ τῆς φύσεως ἐπὶ σωτηρία τε καὶ διαμονῆ. ... (*Caus. Symp.* II, K VII, 177.11-16)

Certainly, in all such symptoms, people say they sense some irregularity, or they stretch the limbs, or they extend all parts under some physical impulse, the kind we were saying just now has been given by Nature to all the parts of the animal for the purposes of safety and preservation. (trans. Johnston, 252)

Text (54)

Paris 78b7-8, Princeton 71a13-14

وهذه خصال تكون في بعض الناس بالطبع من قبل رداءة الخلقة في الأرحام

These are traits which are generated in some people by natural-disposition on the part of a badness of inborn disposition in the womb.

γίγνεται δὲ ταῦτα καὶ φύσει μὲν τισιν εὐθέως ἐν τῇ μήτρᾳ διαπλασθεῖσι μοχθηρῶς· (*Caus. Symp.* III, K VII, 233.16-17)

And these occur naturally at the earliest times (i. e. at birth) in some who are formed badly in the womb. (trans. Johnston, 283)

Text (55)

Paris 79b15-16, Princeton 72a14-15

... أعني أن يكون للأعضاء فضل حسّ إما بالطبع وإما بسبب قرحة

I mean that the body parts have a superfluity of sensation either by natural-disposition or because of an ulcer.

... αἴσθησιν περιττὴν τῶν σωμάτων, εἴτ' ἐκ φύσεως ὑπάρχουσιν, εἴτε δι' ἔλκωσιν. (*Caus. Symp.* II, K VII, 238.18-239.1)

... an excessive sensation of bodies, whether this is from nature, or due to an ulcer. (trans. Johnston, 286)

Text (56)

Paris 85a9, Princeton 77a8

إذا كان كذلك بالطبع

... when it is by natural-disposition like that

φύσει μὲν τοιοῦτον γεγονός, (*Caus. Symp.* III, K VII, 264.6)

... being such in nature (trans. Johnston, 298)

Text (57)

Paris 85a16-17, Princeton 77a13-14

وأما سؤ مزاج الأرحام فقد يكون بالطبع ويكون من طريق حدوث العلل وكذلك كثافة الأرحام

As for a misfortune in the mixture of the uterus, it may be by natural-disposition and by way of the occurrence of illnesses, and that is like the thickening of the uterus.

ἡ δὲ δυσκρασία τῆς ὑστέρας καὶ φύσει καὶ κατὰ διαθέσεις τινὰς γίννεται, καθάπερ ἡ πυκνότης. (*Caus. Symp.* III, K VII, 264.15-16)

A dyscrasia of the uterus occurs both naturally and in certain conditions, just like a thickening. (trans. Johnston, 298)

II. D. other prepositions + al-ṭab‘i**Text (58)**

Paris 29a1, Princeton 18a11-12

... وإما من قبل أنه قد يحتاج في الطبع إلى أن يكون كذلك بمنزلة الجلد.

... or on the part of its being in the natural-disposition that it is necessarily like that, like the skin.

... ἢ καὶ φύσει δεόμενον εἶναι τοιοῦτον, ὥσπερ καὶ τὸ δέριμα. (*Caus. Morb.*, K VII, 25.2-3)

... or is required by nature to be such [a part], like the skin. (trans. Johnston, 171)

Text (59)

Paris 34a14-16, Princeton 23b14-16

فينبغي إذا لمن كان يحب الحق أن يبين أمر الأشياء التي بعضها قريب من بعض في الطبع فهي [فهو بر] لذلك يستخف بها ويغفل [ويعقل بر] أمرها ثم يضع لها أسماء ويتحرى ما أمكنه أن تكون أسماء مشهورة جداً قد جرت بها [به بر] عادة اليونانيين.

He who is truth-loving must make clear the matter of the things which are close to one another in their natural-dispositions (or essences) wherefore no importance is attached to them and their matter is passed over. Then he gives them names and aspires as much as he can that they are very well-known names which the practice of the Greeks entails.

τί δὴ οὖν χρῆ ποιεῖν τὸν ἀληθείας ἐραστήν; ἐπιδεικνύναι τὰ ἀαπλήσια ταῖς ἀλλήλων φύσει πράγματα, καὶ διὰ τοῦτο παρορώμενα, κᾶπειτα τίθεσθαι κατὰ τούτων τὰ ὀνόματα, μάλιστα μὲν, εἰ οἷός τε εἶη, τὰ συνηθέστατα τοῖς Ἑλλησιν· (*Symp. Diff.*, K VII, 45.14-18)

What, then, ought one who loves the truth do? Point out the matters that are similar to the natures of others and owing to this are overlooked, and then put names to these, especially, if it be possible, those most customary among the Greeks. (trans. Johnston, 183)

Text (60)

Paris, 45a14-15, Princeton 33a17

... صغر الحدقة وضيقها الحادث عن مرض لا من الطبع ...

... the smallness of the pupil and its narrowness produced by a disease, not by the natural-disposition ...

... ἡ σμικρυνθεῖσα κόρη λόγῳ νοσήματος, οὐ φύσει ... (*Caus. Symp.* I, K VII, 90.6-7)

... a pupil made smaller by reason of disease, not nature ... (trans. Johnston, 208)

Text (61)

Paris, 51a24-27, Princeton 38a22-25

فنقول إنّ السبب العامّ فيها هو السبب الذي ذكره الفاضل فلاطون في كتابه المسمى طيماوس حيث قال إنّ الحدث الذي يحدث بنا خارجاً عن الطبع باستكراه وفي دفعة هو مؤلم والحدث الذي يردنا إلى الطبع ويكون أيضاً في دفعة هو لذيذ فأما إذا كان قليلاً بعد قليل فإنه لا يُحسّ

So we say that the common cause for this is the cause which the noble Plato has mentioned in his book called *Tīma'ūs* when he says that an occurrence that befalls us outside the natural-disposition by force and suddenly is painful, whereas an occurrence that returns us to the natural-disposition and is also sudden is pleasant. As to when it is gradual, it is not perceived.

κοινή μὲν, ἥνπερ καὶ Πλάτων ἐν Τιμαίῳ φησὶ γράφων οὕτως· τὸ μὲν παρὰ φύσιν καὶ βιαίως γιγνόμενον ἀθρόως ἐν ἡμῖν πάθος, ἀλγεινόν· τὸ δὲ εἰς φύσιν ἀπιὸν αὖ πάλιν ἀθρόον, ἡδύ· τὸ δὲ ἥρέμα καὶ κατὰ μικρὸν, ἀναίσθητον. (*Caus. Symp.* I, K VII, 115.9-13)

Common is what Plato also says in the *Timaeus*, writing thus: ›An affection (pathos) contrary to nature occurring in us violently and intensely is pain; the return to the natural state on the other hand, when it is intense, is pleasure. What is slow and slight is not perceived.‹ (trans. Johnston, 220)

Text (62-63)

Paris 54b4-6, Princeton 55a13-15

... لأنّ الأمر على ما قال الفاضل ابقراط المتأله من أن الوجدع إنّما يحدث للأشياء [للأجسام بر] عندما تتغير في طبعها وتفسد لا بعد ما تكون قد تغيرت وفسدت لأنّ الأجسام إنّما ينالها الأذى على قدر [ـ بر] ما قد بينا قبل في نفس تغيرها وخروجها عن طبعها

For the matter is according to what the excellent and adored Hippocrates says, namely that the pain is only produced for the things when they change in their natural-disposition and are corrupted not after they have changed and been corrupted. For the bodies only receive harm according to the amount, which we have made clear before, with regard to the essence of their change and their being outside of their natural-disposition.

... ὥσπερ ἔλεγεν Ἱπποκράτης· τοῖσι τὴν φύσιν διαλλαττομένοισι καὶ διαφθειρομένοισιν αἱ ὀδύνας γίνονται, οὐ διεφθαμένοισιν ἢ διηλλαγμένοισιν. ἐν γὰρ τῷ μεταβάλλειν τε καὶ τῆς ἑαυτῶν φύσεως ἐξίστασθαι λυπεῖται τὰ σώματα, καθάπερ ἐδείκνυτο καὶ κατὰ τὸν ἔμπροσθεν λόγον. (*Caus. Symp.* II, K VII, 176.8-13)

As Hippocrates said, pains occur in those things that are being changed or destroyed in their nature, not in those that have already been changed or destroyed. For in being changed, and in departing from their own nature, bodies are distressed, as was also shown in the earlier discussion. (trans. Johnston, 252)

II. E. ἄβ' of something or someone

Text (64)

Paris 25b24-25, Princeton 15b10

... الأشياء التي في طبيعتها أن تكون غذاءً للنار ...

... the things in whose natural-disposition it is to be nourishment for fire, ...

... τῶν τρέφειν αὐτὸ φύσιν ἔχόντων ... (*Caus. Morb.*, K VII, 11.9-10)

... those things that are of the nature to nourish it ... (trans. Johnston, 164)

Text (65)

Paris, 26b5-6, Princeton 16a10-11

وجميع ما يوكل ويشرب أيضاً مما له في طبيعته فصل برودة يكون سبباً للمرض البارد

All that is also eaten and drunk of that that has an excess of coldness in its natural-disposition is a cause for cold disease.

ὅσα δὲ ψυχρότερα φύσει τῶν ἐσθιομένων ἢ πινομένων, καὶ ταῦτα ψυχρῶν νοσημάτων αἷτια. (*Caus. Morb.*, K VII, 13.17-14.1)

However, many of the things eaten and drunk that are too cold in nature are also causes of cold diseases. (trans. Johnston, 165)

Text (66)

Paris 31a16-17, Princeton 20a2-3

... ومرة يعرض ذلك للعظام من قبل طبع ما في البدن من الرطوبات

... and sometimes that befalls the bones from the part of the natural-disposition of the fluids in the body.

... ἔστιν ὅτε δὲ καὶ αὐτῆς τῶν ἐν τοῖς ζῴοις ὑγρῶν ὁρμᾶται τῆς φύσεως. (*Caus. Morb.*, K VII, 33.13-14)

... or sometimes being set in motion from the very nature of the fluids in the animals. (trans. Johnston, 176)

Text (67)

Paris 42b26, Princeton 30b18

وإما بسبب طبع الرطوبة نفسها

... or due to the natural-disposition of the humidity itself

ἢ δι' αὐτὴν τὴν τῶν ὑγρῶν φύσιν ἀναγκαῖον γίνεσθαι. (*Symp. Diff.*, K VII, 80.13-14)

... or necessitated by the actual nature of the humours. (trans. Johnston, 200)

Text (68)

Paris, 69a28-b2, Princeton 51b20-22

لأن جميع هذه الأشياء وما أشبهها تحدث سوء مزاج بارد وتفعل ذلك مراراً كثيرة في جميع البدن في أصل العصب ومبدأه نفسه وربما فعلته في الأعضاء التي تتفق أن تكون في طبعها أضعف من سائر الأعضاء ...

For all these things and what resembles them generate a bad cold mixture. They do that often in the entire body at the source and beginning of the nerves themselves, and sometimes they may do that in the body parts which happen to be in their natural-disposition weaker than the other body parts ...

τὰ γὰρ τοιαῦτα πάντα ψυχρὰν δυσκρασίαν ἐργάζεται, πολλάκις μὲν ἐν ὅλῳ τῷ σώματι καὶ κατὰ αὐτὴν τῶν νεύρων τὴν ἀρχὴν, ἐνίοτε δ' ἐν τισὶ μέρεσιν, ἅπερ ἀσθενέστερά τε τῆ φύσει ... (*Caus. Symp.* II, K VII, 158.14-17)

All such things bring about a cold dyscrasia, often in the whole body, and in relation to the actual arche of the nerves, but sometimes in certain parts, which are weaker in nature ... (trans. Johnston, 243)

Text (69)

Paris, 54b13-14, Princeton 55a21-22

وذاك أن الإنسان يحس في باطن بدنه كله وفي عمقه كأن فيه شيئاً غريباً من طبيعه منكرًا عنده ميثوثاً

That is, man perceives in the interior of his whole body and in its depth as if there is in him something alien to his natural-disposition, unfamiliar to him and spread

βύθιος γάρ τις αἴσθησις γίγνεται καθ' ὅλον τὸν ὄγκον, ὡς διεσπαρμένου τινὸς ἐν αὐτῷ τῆς φύσεως ἡμῶν ἀλλοτρίου· (*Caus. Symp.* II, K VII, 177.6-8)

For some deep sensation occurs in relation to the whole mass as if something alien to our nature has been dispersed in it. (trans. Johnston, 252)

Text (70)

Paris 55a19-20, Princeton 55b21

... وإما أن يكون في طبيعه عسر الحسّ ...

... or in that it is in its natural-disposition difficult to be affected ...

... καὶ τῷ τὸ σῶμα τὸ κάμνον ἢ δυσπαθὲς ... εἶναι φύσει. (*Caus. Symp.* II, K VII, 180.3-4)

... as well as in the nature of the fatigued body, whether it is not easily affected ... (trans. Johnston, 253)

Text (71)

Paris 57b16-17, Princeton 57b15-16

ذلك لأنّ المرّة السوداء في طبيعتها هي خلط بارد

That is because black bile is a cold mixture in its natural-disposition

φύσει μὲν γὰρ ἐστὶ ψυχρὸς χυμὸς ἢ μέλαινα χολή, (*Caus. Symp.* II, K VII, 190.12-13)

For black bile is by nature a cold humour, ... (trans. Johnston, 258)

Text (72)

Paris, 74a9-10, Princeton 67a14-15

وفسادها عامّةً يكون بتغيّرها إلى الدخانيّة وفساد كلّ واحد منها خاصّةً يكون بحسب ما هو عليه في طبيعه

Their corruption is, in general, due to their changing into vapours, whereas the corruption of each one of them is, specifically, according to what it is like in its natural-disposition

κοινήν μὲν τινα διαφθορὰν ἐπὶ τὸ κνισῶδες· ἰδίαν δὲ ἕκαστον, ὡς ἂν φύσεως ἔχη. (*Caus. Symp.* III, K VII, 213.18-214.1)

...the usual corruption tending towards steaming although each [food] has a specific [corruption] according to its nature. (trans. Johnston, 273)

Text (73-74)

Paris 74a18-20, Princeton 67a21-23

فإن كانت المعدة قد فعلت في هضم ذلك الطعام فعلاً يسيراً وكان طبع الطعام طبيعاً مزاجه مزاج متوسط وجد صاحب ذلك جشأً حامضاً وإن كان مزاج الطعام مزاجاً له فضل حرارة وكان في طبعه نافخاً امتلى البطن منه ريحاً [رياحاً بر] بخارية

If the stomach does some little work in the digestion of that nutriment and the natural-disposition of the nutriment is a natural-disposition whose mixture is a balanced mixture, he who has that is found belching and acid, and if the mixture of the nutriment is a mixture which has an excess of heat and is flatulent in its natural-disposition, the stomach is filled by it with vaporous wind.

εἰ δὲ καὶ βραχεῖα τις ἐνέργεια παρὰ τὴν πέψιν αὐτῶν γένοιτο, καὶ ἡ τῶν σιτίων φύσις ἦτοι τῆς μέσης εἴη κράσεως ἢ τῆς ψυχροτέρας, ὄξυρεγμιώδεις ἀποτελοῦνται. θερμότερων δὲ κατὰ κρᾶσιν ὄντων ἢ καὶ φύσει φυσωδεστέρων, ἐμπίπλται πνεύματος ἀτμώδους ἢ γαστήρ. (*Caus. Symp.* III, K VII, 214.10-15)

And if some slight function occurs during the digestion of these, and the nature of the foods is either of indeterminate mixture or of one more cold, heartburns (*oxyrgemiodes*) are brought about. When the foods are hotter with respect to mixture, or also more flatulent in nature, the stomach is filled with vaporous *pneuma*. (trans. Johnston, 273-274)

Text (75)

Paris, 76a14, Princeton 69a9-10

وذلك أن بعض الأغذية في طبعها مولدة للسوداء ...

That is that some foodstuffs are more generative for melancholy in their natural-disposition ...

τὰ μὲν γὰρ μελαγχολικώτερα φύσει, ... (*Caus. Symp.* III, K VII, 223.10)

For some are more melancholic in nature, ... (trans. Johnston, 278)

Text (76)

Paris 79b24-25, Princeton 72a23-24

إلا أن يكون الغذاء في طبعه نافخاً

... unless the food is flatulent in its natural-disposition

ἢν μὴ φυσώδης ὑπάρχη φύσει· (*Caus. Symp.* III, K VII, 239.17)

... unless it is vaporous by nature. (trans. Johnston, 286)

III. PHYSIS → ἸΑΒΪΪ**Text (77)**

Paris 51b1-3, Princeton 38a26-38b1

وحاسة اللمس يحدث فيها التغييرات عن الحال الطبيعية من قبل عنف مماسة ما يلقي البدن من الشيء الحار أو البارد أو شيء مما شأنه أن يرض ويفسخ أو يقطع أو يمدد أو يأكل

In the sensation of touch, there occur changes away from the natural condition due to the vehemence of some contact between the body and something hot or cold or something whose matter it is to crush, to tear, to cut, to expand or to erode.

εἰσὶ δὲ καὶ κατὰ τὴν ἀφήν αἱ μεγάλαι μεταλλαγαὶ τῆς φύσεως ὑπὸ ψυχροῦ καὶ θερμοῦ βιαίας προσβολῆς, ὅσα τε θλάῃν, ἢ τέμνειν, ἢ διατείνειν, ἢ διαβιβρώσκειν πέφυκε. (*Caus. Symp.* I, K VII, 115.18)

And with respect to touch, there are major changes of nature from the violent visitation of cold and heat, and such things as are disposed to crush, cut, stretch or erode. (trans. Johnston, 220)

IV. *PHYSIS* → *QUWWA*

Text (78)

Paris 82b6-7, Princeton 74b15-16

وهاهنا شيء هو خلاف هذه العلة وهو ما يكون في العرق البحراني [الباحوري بر] وذلك أن هذا ليس يدل على أن القوة قد ضعفت وانحلت

Here a matter is the opposite of this cause, and that is that which is in the critical sweat. For this does not indicate that the power is already weak and dissolved.

τούτω δὲ ἐναντία κατάστασις ἐστὶν ἢ ἐν τοῖς κρισίμοις ἰδρωσίν, ἐρρωμένην ἐνδεικνυμένοις, οὐ διαλυομένην τὴν φύσιν. (*Caus. Symp.* II, K VII, 252.11-13)

The opposite state to this is that in the critical sweats which indicate a strong rather than a dissolved nature. (trans. Johnston, 292-293)

Text (79)

Paris 67b22-23, Princeton 51a19-20

وذلك لأن الرعدة ليس هي بتبديل [تبدیل بر] حركة ابتدأها [تبدلها بر] قوة واحدة كالنبض بل إنما هي قتال ومجاهدة بين القوة وثقل الجسم

For the tremor is not brought about by a change of movement whose source is one power like the pulse, but it is a battle and struggle between the power and the weight of the body.

οὐ γὰρ ἀμοιβὴ κινήσεως ἐστὶν ὑπὸ μιᾶς ἐπιτελουμένη φύσεως, ἀλλὰ μάχη δυνάμεως τε καὶ βάρους σώματος. (*Caus. Symp.* II, K VII, 155.15-16)

The alternation of movement is not brought about by one nature but there is a struggle between the capacity and the weight of the body. (trans. Johnston, 242)

Text (80)

Paris, 24b24-27, Princeton 14b23-24

... يقول إن الرياضة إن كانت يسيرة وكانت مع قلتها ليست بالقوية بل أضعف من قوة بدن المرياض بها جداً لم يحدث عنها أعياء أصلاً

He says that if the exercise is slight and together with being little it is also not vigorous, but much weaker than the power of the body of the one exercising it, no fatigue is produced from it at all.

ἢ γὰρ μικρὸς ὁ κόπος, ἢ ὀλιγοχρόνιος, ἢ τῆς τοῦ σώματος ἰσχύος ἥττων ἐγένετο, ἢ τὸ μὲν γυμνάσιον, εἰ βραχυχρόνιον εἶη καὶ μὴ σφοδρὸν καὶ τῆς τοῦ γυμναζομένου φύσεως ἀσθενέστερον, οὐκ ἂν ποτε κόπον ἐργάσεται, ... (*Caus. Morb.*, K VII, 7.16-8.4)

... or if the exercise [is – E. W.] of short duration, or not vigorous, or weaker than the natural constitution of the one exercising, it would not then bring about fatigue. (trans. Johnston, 162)

V. *PHYSIS* → ĠAWHAR

Text (81)

Paris 60a9, Princeton 39b14

كما أنّ حاسة المذاق إنّما تحسّ الجوهر الرطب

... as the sensation of taste perceives only the humid substance

ὥσπερ γε καὶ ἡ μὲν τῆς γεύσεως, ὑγρᾶς φύσεως· (*Caus. Symp.* I, K VII, 122.8)

... just as that of taste is one of a moist nature (trans. Johnston, 223)

VI. *PHYSIS* → NO CORRESPONDING ARABIC TERM

VI. A. Omitting Galen's Demiurgic Nature

Text (82)

Paris, 18b6-7, Princeton 6b9-10

... وملاسة الأعضاء أيضاً وخشونتتها من الأشياء التي لم تُجعل بالطلاً ولا عبثاً

Also the smoothness of the parts and their roughness belongs to the things which are not made in vain and futile.

ἀλλὰ μὲν δὴ καὶ λειότης καὶ τραχύτης οὐδ' αὐταὶ ματαίως ὑπὸ τῆς φύσεως ἐγένοντο διαπλαττούσης τὰ μόρια. (*Morb. Diff.*, K VI, 861.3-5)

But, in fact, even smoothness and roughness are not themselves without purpose in the natural conformation of the parts. (trans. Johnston, 147)

Text (83)

Paris 28b21-24, Princeton 18a6-8

وكانت أعضاء البدن ليست بمتساوية كلها في القوة لكن أشرفها وأنفسها خلقت منذ أول الأمر أقوى وأشدّ وجب أن تكون الأبدان التي ليست بنقية والفضل فيها كثير ينصبّ فيها [منها بر] شيء إلى الأعضاء التي هي أقل شرفاً وأقل نفاسةً

The parts of the body are not all equal in power, but the nobler and more precious ones of them have been created more powerful and intense from the beginning. It is necessary that in the bodies, which are not pure and in which there is much superfluity, something flows to the body parts which are of less nobility and preciousness.

καὶ τοίνυν καὶ τῶν τοῦ σώματος μορίων οὐκ ἴσην ἀπάντων ἐχόντων τὴν ῥώμην, ἀλλὰ τῶν κυριωτέρων εὐθὺς ἐξ ἀρχῆς ὑπὸ τῆς φύσεως ῥωμαλεωτέρων ἀποτελεσθέντων, εὐλογον ἐν τοῖς ἀκαθάρτοις τε καὶ περιττωματικοῖς σώμασιν ἐπιρρεῖν τι τοῖς ἀκυρωτέροις μορίοις. (*Caus. Morb.*, K VII, 24.10-14)

Moreover, since all parts of the body are not equal in strength, but the more important parts are from the very beginning made stronger by Nature, it is reasonable that in impure and superfluity-containing bodies something flows to the less important parts. (trans. Johnston, 171)

Text (84)

Paris 29a7-10, Princeton 18a16-19

وذلك أنّ البدن قد جعل فيه منذ أول أمره آلات كثيرة قدرت بحكمة ولطف لتنقية ما يتولد فيه من الفضل فما دام في سلامة وصحة فتلك الآلات وحدها تقي بتنقيته متى ما لم يحدث له آفة من قبل الهواء أو من قبل تدبير يجري على غير ما ينبغي فيجتمع فيه بسبب ذلك فضول كثيرة مفرطة.

For, from the beginning, many organs have been made in the body which have been appointed by wisdom and kindness to clean the superfluity which is generated in (the body). So as long as it is in well-being and health,⁶⁷ those organs alone preserve (it) through cleaning it, whenever no damage occurs to (the body) neither due to the air nor due to a conduct which is not as it should be. For due to that many excessive superfluities gather in (the body).

πολλὰ μὲν γὰρ εὐθὺς ἐξ ἀρχῆς ἡ φύσις ἐτεχνήσατο τῶν περιττωμάτων καθάρσεως ἕνεκεν ὄργανα, καὶ πρὸς γε τὴν ὑγίαν ἀρκεῖ μόνα ταῦτα, ἐπειδὴν μήτε τις ἐκ τοῦ περιέχοντος ἐγγίνηται βλάβη τῷ ζῳῳ, μήτ' ἐκ πλημμελοῦς διαίτης περιττωματικὸν ἀμέτρως ὄλον ἀπεργασθῆ τὸ σῶμα. (*Caus. Morb.*, K VII, 25.11-15)

Right from the beginning, Nature has crafted many organs for the sake of the evacuation of superfluities, and these alone are sufficient for health whenever neither damage comes upon the animal from what surrounds, nor the whole body is made excessively superfluity-containing from a faulty way of life. (trans. Johnston, 171)

67 Health is rendered by the hendiadys *salāma wa-ṣiḥḥa*.

Text (85)

Paris 61b23-26, Princeton 41a11-13

فَأَمَّا الْحَيَوَانَ فَإِنَّهُ لَمَّا كَانَ لَا يَتَّصِلُ بِالْأَرْضِ خِلاَ الْبَسِيرِ مِنْهُ جَعَلَتْ لَهُ الْمَعْدَةَ لِيَكُونَ خَزَانَةً لِغِذَائِهِ بِمَنْزِلَةِ الْأَرْضِ لِلنَّبَاتِ وَجُعِلَ لَهُ
أَيْضاً أَنْ يَحْسَّ بِالنَّقْصَانِ كَيْمَمَا إِذَا تَحَرَّكَ الْحَيَوَانُ إِلَى تَنَاوُلِ الطَّعْمِ وَالشَّرَابِ أَمْتَلَتْ فِي وَقْتٍ وَاحِدٍ

As for the animal, since it is not connected with the earth except for a minority of (animals), the stomach has been made for (the animal) so that it may be a treasure house for its nourishment like the earth for the plants. The fact that (the animal) perceives lack has also been made for (the animal) so that (the stomach) is refilled at one time, when the animal is moved to take food and drink.

τοῖς δὲ ζώοις ἄτε μὴ προσπεφυκόσι τῇ γῆ, πλὴν ὀλίγων δὴ τινων, ἡ φύσις ἐδημιούργησε μὲν καὶ τὴν γαστέρα ταμεῖον τροφῆς, οἷόν περ τὴν γῆν τοῖς φυτοῖς· ἔδωκε δὲ καὶ τῆς ἐνδείας αἰσθησιν, ἵν' ἐξορμῶντα τὰ ζῶα πρὸς τε τὴν ἐδωδὴν τε καὶ πόσιν ἐνὶ χρόνῳ πληρῶνται. (*Caus. Symp.* I, K VII, 129.15-130.2)

For animals, inasmuch as they are not made to grow by the earth, apart admittedly from a few instances, Nature has fashioned the stomach as a storehouse of nutriment, like the earth for plants. And it has given a perception of lack so that animals are stimulated to fill themselves with food and drink at one time. (trans. Johnston, 227)

Text (86)

Paris 64b22-23, Princeton 43a26-27

ولقد كان أولى [أولاً ب] وأقرب إلى الإقناع أن يقول إنَّ النوم إنما يكون عندما ترطب الرئة فإنَّ الرئة لن تُخلَق [لن تخلق ب]: لم يخلق
بر] ولم يرد بها شيء [بها شيء ب: بهما شيئاً بر] إلا أن تخدم القلب

In truth, it is better suited and closer to conviction to say that sleep takes place when the lung becomes moist. For the lung is only created and meant for one thing, namely to serve the heart.

πολὺ γὰρ δήπου πιθανώτερον ἦν ἐπὶ ταῖς τοῦ πνεύμονος ὑγρότησι γίνεσθαι τοὺς ὕπνους, ὃν ἡ φύσις οὐδὲν ἄλλο ἢ ὑπηρετήσοντα τῇ καρδίᾳ περιέβαλε κύκλῳ. (*Caus. Symp.* I, K VII, 142.10-12)

For it is, of course, far more plausible for sleep to occur in moistenings of the lung, which Nature placed in a circle around the heart for no other reason than to serve it. (trans. Johnston, 233)

Text (87)

Paris 52b28, Princeton 53b22-23

... المنخرين اللذين هما طريقين للتنفس [للنفس بر]

... the nostrils, which are two passages for respiration.

... αἱ δὲ καὶ αὐταὶ τῆς ἀναπνοῆς εἰσὶν ὁδοὶ ὑπὸ τῆς φύσεως εὐρημέται. (*Caus. Symp.* II, K VII, 169.7-8)

[the nostrils – E. W.] which are themselves passages of respiration invented by Nature. (trans. Johnston, 248)

Text (88)

Paris 72a22-25, Princeton 65b14-15

ورداءة فعل الهضم تكون على ضربين أحدهما أن يبطي الطعام في الاستحالة والتغيير [والتغير بر] إلى الكيفية المشاكلة له
الخاصية به والآخر أن يفسد الطعام أصلاً حتى لا يمكن فيه بعد ذلك أن يتغير ويستحيل [+ إلى بر] ما ينبغي

The defect of the digestive action is of two kinds: one of them is that the food is slowed down when changing and altering into the quality which is similar and suited⁶⁸ to it; and the other is that the food corrupts completely so that with regard to it, it is afterwards not possible that it changes and alters as [or: into what] it should.

οὔσης δὲ καὶ αὐτῆς τῆς κακώσεως διττῆς, ἢ τῷ βραδύνειν τε καὶ μηδέπω δέχεσθαι τὴν οἰκείαν μεταβολὴν, ἢ τῷ διεφθάρθαι παντάπασιν, ὡς μηδ' ὄλως δύνασθαι τὸν ἐκ τῆς φύσεως κόσμον δέξασθαι (*Caus. Symp.* I, K VII, 206.15-18)

This malfunction is also twofold, either due to slowing and not yet taking on the proper change, or due to being completely ruined so it is altogether unable to take on the order of nature. (trans. Johnston, 269)

68 For *ḥāṣṣī*, see Ullmann, *Wörterbuch*, Suppl.

VI. B. Omitting nature in various meanings

Text (89)

Paris 21b14-16, Princeton 9a12-13

وأما النملة والسرطان فهما وسط فيما بين هذه وذاك أنّهما في أكثر الأمر يكونان مع قرحة وربّما كان كلّ واحد منهما بلا قرحة.

As for pustule and cancer, they are both a mean in between these, that is they two are many times with ulcer and sometimes each of them is without ulcer.

μέσα δὲ τούτων ἐστὶ τὴν φύσιν ἑρπητῆς τε καὶ καρκίνου, τὰ πολλὰ μὲν ἅμα τοῖς ἔλκεσιν, ἔστιν ὅτε δὲ καὶ χωρὶς ἐκείνων (*Diff. Morb.*, K VI, 874.16-875.1)

... whereas intermediate in nature between these are *herpetes* and cancers (*karakinoi*), many occurring accompanied by ulcers but sometimes also apart from them. (trans. Johnston, 153)

Text (90)

Paris, 36b6-7, Princeton 25b5-6

ولذلك [وكذلك بر] ينبغي لنا أن نذكرك أولاً بأن أصنافها ثلاثة ثم نتبع ذلك لتقسيم [بتقسيمها بر] كلها أولاً [أول فأول بر] ونجعل مبدأنا في ذلك [في ذلك ب: - بر] من مضار الفعل

Therefore it is necessary for us that we mention to you first that their sorts are three, then we let that be followed first by the division of all of them and then we make our beginning in that with the damage of the activity.

Ἀναμνησθέντας οὖν πρῶτον χρὴ τὸ τρίτον τῆς φύσεως αὐτῶν οὕτω τέμνειν ἐφεξῆς ἅπαντα, τὴν ἀρχὴν ἀπὸ τῆς βλάβης τῶν ἐνεργειῶν ποιησαμένους. (*Symp. Diff.*, K VII, 55.6-8)

It is necessary, then, having first called to mind the threefold nature of these [symptoms], to divide them all in this way in turn, making a start from the damage of functions. (trans. Johnston, 188)

Text (91)

Paris 43a9, Princeton 30b27

إذ كانت الأعراض كلها إنّما الفاعل لها الأمراض ...

Since the agent of all symptoms are the diseases ...

ἀπάσης γὰρ τῶν συμπτωμάτων τῆς φύσεως ἡγεῖσθαι χρὴ νοσήματα, ... (*Symp. Diff.*, K VII, 81.7-8)

For diseases must precede every kind [*physis* – E. W.] of symptom, ... (trans. Johnston, 201)

Text (92)

Paris, 47a27-28, Princeton 35a6

فإن لم تكن تلك الرطوبة كثيرة المقدار وكان لونها متغيّراً [متغيّراً بر] أحدثت [حدث بر] في البصر حالات [خيالات بر] بحسب لونها

If this humour is not much in quantity and its colour changed, conditions occur according to its colour in vision.

εἰ δὲ μὴ πολλὰ μὲν εἴη τὰ ὑγρὰ, τῆ χροῶ δ' ἐξηλλαγμένα, κατὰ τὴν ἐκείνων φύσιν παρόρασις γίνεσθαι. (*Caus. Symp.* I, K VII, 99.9)

If the fluids are not great in amount but are changed in colour, a false vision involving the nature of those things occurs. (trans. Johnston, 212)

Text (93)

Paris 68a22-23, Princeton 39a10

واللطيف الأجزاء أبداً أقوى من الغليظ الأجزاء

The fine with regard to its parts is always more powerful than the thick with regard to its parts.

ἀεὶ δὲ τῆ φύσει δραστικώτερον ἐστὶ τὸ λεπτομερὲς τοῦ παχυμεροῦς. (*Caus. Symp.* I, K VII, 119.11)

Invariably in Nature what is composed of fine particles is more efficacious than what is composed of thick particles. (trans. Johnston, 222)

Text (94)

Paris 64a17-18, Princeton 43a2

لأنّ الدماغ لم يُجعل آلة حسّاسة بل إنّما جُعِلَ آلة تحسّ بالحواسّ

For the brain is not made as a sensible organ, but is made as an organ which perceives sensations.

αὐτὸς γὰρ ὁ ἐγκέφαλος οὐκ αἰσθητικὸν ὄργανον ὑπὸ τῆς φύσεως, ἀλλ' αἰσθητικῶν αἰσθητικὸς ἐγένετο. (*Caus. Symp.* I, K VII, 139.17)

For the brain itself is not by nature a perceiving organ, but the perceiver of what is perceived. (trans. Johnston, 232)

VII. ADDING NATURE IN ARABIC (some examples)

Text (95) - *ousia* → *ṭabī'a*

Paris 42b6-9, Princeton 30b3-4

فَأَمَّا الأشياء التي تستفرغ من البدن خارج عن الطبيعة أو تحتبس فيها [فيه بر] فَأَنَّهَا تنقسم إلى ثلاثة أصناف أول وذلك أَنَّهَا لا تحلوا من أن يكون خروجها عن الطبيعة إِمَّا في جملة طبيعتها وإِمَّا في كَيْفِيَّتِهَا وإِمَّا في كَمِّيَّتِهَا

As for the things which are expelled from the body contrary to nature or retained in it, they are divided into three primary kinds, that is that they are not free from their being contrary to nature either in the entirety of their nature or in their quality or in their quantity.

Τὰ δ' ἐκκρινόμενα τοῦ σώματος, ἢ κατεχόμενα παρὰ φύσιν, εἰς τρεῖς μὲν τέμνεται καὶ αὐτὰ τὰς πρώτας διαφορὰς, ἢ τὰς οὐσίας ὅλαις, ἢ τὰς ποιότησιν, ἢ τὰς ποσότησιν ἐξιστάμενα τοῦ κατὰ φύσιν. (*Symp. Diff.*, K VII, 79.8-11)

Things expelled from the body, or retained contrary to nature, are themselves divided into three primary *differentiae*, according to whether they depart from what accords with nature in whole substances, in qualities or in quantities. (trans. Johnston, 200)

Text (96) – *zōon* → *ṭabī'a*

Paris 43a11-21, Princeton 31a2-9

وفي مثل هذا الموضع ينبغي لك أن تقف وتلبث حيناً وتجعل ذهنك في الأمر [الامراض ب] حتى تميز وتفرق بعناية شديدة بين الأعراض وبين أعمال الطبيعة. فَإِنَّ [قال بر] في مواضع كثيرة يبلغ من مشابهتها بعض لبعض حتى يظنّ بالعرض أنّه عمل من أعمال الطبيعة ويظنّ بعمل الطبيعة أنّه عرض من الأعراض. ومن لم يكن معه في ذلك آلة قُوَّةٍ صحيحة يمتحن بها الأمر [الامراض ب] اخطاءً وجعل باب خطأه تلباً [تبياناً ب] لنا وطعننا علينا في كلامنا. من ذلك أنّه إن [لو بر] جعل الدستور الذي عليه يجري أمر ما [أمر ما ب: الأمر فيما بر] يستفرغ بالطبع في أبدان الأصحاء ، كَمِّيَّة الجوهـر المستفرغ أو كَيْفِيَّتِهِ أو جملة جوهـره واقتصر على تفقد ذلك فقط والنظر فيه وامتحان الأعراض به أخطأ في أبواب كثيرة. إذ كنا قد نجد مراراً [ب] كثيرة بر] أنّ المريض يعرق عرقاً أكثر من مقدار العرق الطبيعي بأضعاف كثيرة أو يخرج منه بالبراز أو البول [بالبول بر] مثل ذلك من غير أن يكون السبب في ذلك مضرّة نالت فعلاً من الأفعال بل يكون السبب فيه قُوَّة وعناية من الطبيعة

With regard to something like this topic, it is necessary for you that you stand still and linger for some time and make up your mind about the matter, so that you distinguish and divide with intense care between the symptoms and between the works⁶⁹ of nature. For in many places some attain a high degree of resemblance to others, so that one may suspect the symptom to be one of the works of nature; and one may suspect the work of nature to be one of the symptoms. He, who, with regard to that, does not have a powerful and sound instrument with him, will test the matter faultily by them. He makes the subject of his error a disadvantage for and a criticism of us with regard to our discussion. Therefrom, if he makes the quantity of the emptied substance or its quality or the entirety of its substance the model, according to which the matter of naturally emptying happens in the bodies of the healthy,

69 The consistent use of two different Arabic terms for *ergon* (*'amal*) and *energeia* (*fi'l*) here is remarkable as they are normally both translated with the same term *fi'l*.

and if he restricts himself to the examination of only that, to the consideration of it and to the testing of the symptoms through it, he will err in many subjects. For we often used to find that the sick sweated many times more than the natural amount of sweat or excreted excrement or urine like that without the cause for that being a damage which got hold of one of the activities, rather the cause for it being the power and care of nature.

ἀλλ' ἐνταῦθα μὲν προσέχειν ἀκριβῶς χρὴ τὸν νοῦν καὶ διορίζειν ἐπιμελῶς τῶν ἔργων τοῦ ζώου τὰ συμπτώματα. πολλαχῆ γὰρ ἀλλήλοις οὕτως ἔοικεν, ὡς καὶ τὸ σύμπτωμα ἔργον νομίζεσθαι καὶ τοῦργον σύμπτωμα. καὶ εἰ μὴ τις ἔχει τι κἂν τούτῳ κριτήριον ὑγιᾶς, ἐξ ὧν ἂν αὐτὸς σφάλῃται συκοφαντήσει τὸν λόγον. εἰ γὰρ δὴ τῶν κατὰ φύσιν ἐκκρίσεων, οὕτω δὲ καλοῦσι τὰς ἐπὶ τῶν ὑγιαίνοντων γιγνομένας, ἥτοι τὸ ποσὸν, ἢ καὶ τὸ ποιὸν, ἢ καὶ τὸ γένος αὐτὸ τῆς οὐσίας ὑποθέμενός τις σκοπὸν, ἔπειτα πρὸς τοῦτ' ἀποβλέπων κρίνει τὰ συμπτώματα, σφαλῆσεται πολλαχόθι. πολλαπλάσιος γὰρ ἰδρῶς ἐνίστε τοῦ κατὰ φύσιν, ἢ γαστρὸς διαχώρησις, ἢ οὖρα τοῖς ἀρρωστοῦσι γίνεται, μὴ ὅτι βεβλαμμένης ἐνεργείας τινὸς, ἀλλὰ καὶ μετὰ ῥώμης καὶ προνοίας τοῦ ζώου γιγνομένης. (*Symp. Diff.*, K VII, 81.12-82.7)

But here we ought to pay close attention to, and distinguish carefully, symptoms from the actions of the animal. For frequently one may seem like the other, so the symptom may be thought to be an action or the action a symptom. And if someone does not have sound judgement in this too, from those things he should be mistaken about, he would criticize the argument in a pettifogging way. For if of the expulsions that accord with nature, as they call those occurring in the case of the healthy, someone proposes as an object of attention the quantity, quality or actual class of the substance, and then paying attention to this assesses the symptoms, in many instances he will be wrong. For sometimes it happens that the sweat is much more than accords with nature, or the excretion of the stomach, or the urine of those who are unwell, although it is not that some function is damaged, but that this occurs along with the bodily strength and care of the animal. (trans. Johnson, 201, slightly changed)

Text (97) – *ōmos* → *tada'u l-ṭabi'atu l-aḥlāṭa nī'atan*

Paris 73a26-27, Princeton 66b9

وَأَمَّا فِي الْعُرُوقِ فَانْحِسَامُ الْفَعْلِ يَكُونُ عِنْدَمَا تَدَعُ الطَّبِيعَةُ الْأَخْلَاطَ نَيْئَةً لَا نَضِجَ لَهَا أَصْلًا

As for in the blood vessels, there is the cutting of the activity when nature leaves the humours raw and not having ripeness.

κατὰ δὲ τὰς φλέβας ἢ μὲν τῆς ἐνεργείας στέρησις ἐν τοῖς παντάπασιν ὤμοις χυμοῖς· (*Caus. Symp.* III, K VII, 210.16-17)

Regarding the veins, there is privation of function in the altogether undigested humours, ... (trans. Johnston, 271)

Text (98) *dynamis* → *tabī'a*

Paris 78b1-3; Princeton 71a8-10

وجميع هذه الأنواع تعرض من ثلاثة أسباب إما لأن الطبيعة تفتح عرقاً من العروق بمنزلة ما يعرض ذلك في الرعاف الباحوري وإما لأن الدم نفسه حاله حال خارجة عن الطبيعة وإما لأن واحداً من العروق التي تحويه قد صار إلى حال حاله خارجة عن الطبيعة

All these kinds happen from three causes, either because nature opens one of the blood vessels like that happening in the anomalous nosebleed, or because the condition of the blood itself is a condition outside nature, or because one of the blood vessels, which contain it, arrives at a condition, in which its condition is outside nature.

ἅπαντα δὲ τὰ τοιαῦτα ἐμπίπτει διὰ τρεῖς αἰτίας, ἥτοι τῆς δυνάμεως ἀναστομωσάσης ἀγγείων, ὡς ἐν ταῖς ἐκ ῥινῶν αἰμορραγίαις, ἢ δι' αὐτὸ τὸ αἷμα μοχθηρῶς διακείμενον, ἢ τῶν ἀγγείων τι. (*Caus. Symp.* III, K VII 233.7-10)

All such things happen from three causes: either when the capacity opens up a vessel as in haemorrhages from the nose, or by the blood itself being adversely affected, or one of the vessels [being adversely affected]. (trans. Johnston, 283)

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Abbreviations

CMG = Corpus Medicorum Graecorum

GAS = Geschichte des arabischen Schrifttums

K = Kühn's edition of *Claudii Galeni opera omnia*

Caus. Morb. = *De Causis Morborum*

Morb. Diff. = *De Morborum Differentiis*

Caus. Symp. = *De Symptomatum Causis*

Symp. Diff. = *De Symptomatum Differentiis*

TLG = Thesaurus Linguae Graecae

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