R. MOSHE NARBONI: PHILOSOPHER AND PHYSICIAN,
A CRITICAL ANALYSIS OF SEFER ORAH HAYYIM

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Introduction

Moses Ben Joshua of Narbonne (c. 1300-1362 C.E.), also known as Maestro Vidal Bellsom (Blasom), was one of the foremost philosophers of his time. He was also a medical author and practising physician, who began his career in his native city Perpignan. Jewish physicians in 14th century Provence constituted as much as five percent of the Jewish working population. Jews treated Christians as well as their coreligionists, and often held the official position of municipal physician. Their services were particularly in demand during epidemics. In 1344, after he finished his commentary on Ibn Rushd’s “Epistle on the possibility of conjunction with the active intellect”, Narboni fled Perpignan because of the turmoil that followed the conquest of the Kingdom of Majorca (the Balearic Islands and Roussillon) by the king of Aragon, Pedro IV. Subsequently Narboni led an itinerant life in northern Spain, residing and practicing medicine in several cities, such as Barcelona, Burgos, Cervera, Toledo and Soria. Jewish physicians were held in high esteem by the Christians in northern Spain; they were hired by municipal authorities to attend to the medical needs of the community and shared this responsibility with Christian practitioners, despite ecclesiastical prohibitions to the contrary. The tiny Jewish communities of northern

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4 See Luis García-Ballester, “A marginal learned medical world: Jewish, Muslim and Christian medical practitioners and the use of Arabic medical sources in late medieval

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Spain supported a relatively large number of physicians. For instance, the Jewish community of Barcelona, with an estimated population of 1,200-1,500, counted eleven medical practitioners, while their Christian neighbours, nearly twenty times as numerous, supported only twenty-two. In Aragon, where the Jews were outnumbered three to one by Muslims, there were ten times as many Jewish as Muslim physicians. During his travels through northern Spain Narboni witnessed the impact of war and banditry on the Jewish community. In 1349, when the Jews were persecuted in the wake of the Black Death, he was forced to abandon his home in Cervera, leaving his library behind. In 1355, while residing in Toledo and engaged in the composition of a commentary on Maimonides' Guide, Narboni experienced the ravages of pillage and plunder first hand. He then moved to Soria, where he completed his commentary in 1362.

Narboni wrote an important medical work, Sefer Orah Hayyim, which is extant in manuscript. This work has yet to be thoroughly studied; some aspects, such as the author's autobiographical references, and the medical authorities which he cites were briefly treated by Steinschneider and Renan. In this article I will discuss Narboni's implicit sources as well as his explicit quotations from ancient and medieval physicians in greater detail. I will also consider several hitherto neglected facets of the work, namely, medicine, regimen and education of children, magic, astrology, and philosophy.

Narboni's medical compendium, composed in the year 1350, consists of six parts, each of which comprises several chapters. The first part,
fols. 8a-24a in MS Munich 276, treats diseases of the head (8a-17b), eyes (17b-20b), ears (20b-21a), nose (21a-22a), face (22a-b), and lips (22b-24a). The second part, fols. 24a-31b, deals with ailments of the throat, breast, lungs, heart and armpits. The third part, fols. 31b-44a, considers ailments of the stomach and intestines. Part four, fols. 44a-76b, treats ailments of the liver (44a-50b), spleen (50b-52a), kidneys (52a-55a), bladder (55a-58b), penis (59b-61b), testicles (61b-63a), and womb (63a-72a). It also addresses the regimen and moral instruction of children (72a-76a), and the regimen of the aged (76a-b). The fifth part, fols. 76b-111a, discusses diseases of the joints (76b-81b), abscesses (81b-92a), wounds caused by external factors (92a-100b), and skin diseases (100b-111b). Part six, fols. 112a-139b, treats ephemeral fever (112a-b), hectic fever (112b-118a), humoral fever (118a-123b), pestilential fevers (123b-125b), tertian fever (125b-128a), continued tertian fever (128a), burning fever (128a), tertian fever with phlegmatic fever (130a-b), quotidian fever (130b-134a), quartan fever (134a-136b), compound fevers (136b-138b), and mixed fevers (138b-139b).


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11 It would be interesting to trace the sources of Narboni’s terminology, an endeavor that might also help to resolve the question whether the author consulted Hebrew translations or original works.
12 Fol. 128a.
13 Fol. 9b.
14 Fol. 112b. Cf. Aristotle, *Historia Animalium* 490a34, where Aristotle relates of the dayfly that it is exceptional in the shortness of its existence.
16 Fol. 112b.
17 Fol. 130b.
18 Fol. 7b.
hi holi ha-'illuf nigra singopes be-Latin amortement\textsuperscript{19} be-La'az (unconsciousness).\textsuperscript{20} From his use of polyglot terminology, one might conclude that Narboni was familiar with Arabic, as well as Hebrew, Latin and Romance. However, Steinschneider has argued that one cannot draw conclusions from his use of Arabic medical terms; he may have acquired some knowledge of Arabic during his years in northern Spain, but he certainly did not translate Arabic works into Hebrew himself, as some bibliographers have supposed.\textsuperscript{21} Renan claims that Narboni knew Arabic rather well, having studied it in Spain.\textsuperscript{22} Ivry cautiously remarks that "it is likely that he knew Arabic and some Latin."\textsuperscript{23} Such caution is warranted by García-Ballester's remark that the Jewish communities of Aragon and Provence unlike those of Castile, "gradually forgot Arabic as the 14th century progressed, and as a result lost the ability to read medical manuscripts in Arabic, using instead Hebrew, Romance languages or Latin itself."\textsuperscript{24} A close examination of the medical material in \textit{Sefer Orah Hayyim}, which contains some translations from the Arabic that meanwhile cannot be traced to other hands, suggests that Narboni had a certain command of Arabic.\textsuperscript{25}

\textit{Explicit sources}

The physicians explicitly cited by Narboni in his \textit{Sefer Orah Hayyim} may be conveniently divided into four classes: (1) ancient physicians (2) medieval Islamic physicians (3) medieval Jewish physicians (4) medieval Christian physicians.\textsuperscript{26}

The ancient physician quoted most frequently is Galen, whose medical system was adopted by all medieval physicians. In some cases, Narboni refers to particular works by Galen, such as his commentary to Hippocrates' \textit{Epidemia}.\textsuperscript{27} Other ancient authors quoted are Hippocrates,\textsuperscript{28} Dioscurides,\textsuperscript{29} Rufus,\textsuperscript{30} and Aristotle. Two statements erroneously

\textsuperscript{19} Possibly a corruption of Spanish \textit{amortecimiento}: "fainting".
\textsuperscript{20} Fol. 30a.
\textsuperscript{21} Steinschneider, op. cit., note 1 above, p. 312, esp. n. 331.
\textsuperscript{22} Renan & Neubauer, op. cit., note 1 above, p. 320.
\textsuperscript{23} Ivry, art. "Moses Ben Joshua of Narbonne," op. cit., note 1 above, col. 422.
\textsuperscript{25} See the section on implicit sources.
\textsuperscript{26} See as well Steinschneider, op. cit., note 1 above, p. 747.
\textsuperscript{27} Fol. 77a; see as well fol. 109a: "Galenus be-sefer Epidemia"; another work by Galen quoted explicitly is his "Ba-peraqim" (\textit{De differentiis febrium}).
\textsuperscript{28} Fols. 10a, 11b, 15b, 21a, 29a, 34a, 80a.
\textsuperscript{29} An example of a magical remedy quoted in his name is that if someone suffers from toothache he should touch the aching tooth with the tooth of a dead person (fol. 22b); see as well fols. 30a; 49a; 65b; 68a; 70a; 71b; 80b; 97b.
\textsuperscript{30} Fol. 98a. The recipe quoted is for the bite of vulture-lice (\textit{kinnei nesher}).
attributed to Aristotle are of particular interest for the light they shed on the tortuous paths by which ancient medical knowledge reached the medievals. In one passage Aristotle is said to have argued that “passionate love (‘ishq) is a blinding of the senses so that one cannot see the faults of the beloved; it is a divine disease...”\(^31\). To the best of my knowledge, this statement does not feature in Aristotle’s writings. Plato viewed love born out of the sight of beauty, as a divine madness. A notion, disputed by Galen, that was influential in Islamic and Christian understandings of passionate love.\(^32\) In the second passage erroneously attributed to Aristotle, Narboni quotes a fertility test from Aristotle’s *De animalibus* (*Sefer Ba’alei Hayyim*): To determine whether the man or the woman is the cause of infertility: “Let each of them urinate on horseradish roots; whoever causes a root to shrivel, is the cause of the infertility. Or have them put some of their sperm in a pot with water. The one whose sperm floats on the surface of the water is the cause of infertility.”\(^33\) The latter test, which presupposes that women as well as men have sperm, could not have originated with Aristotle, for he emphatically denied the existence of female sperm. The theory of female sperm, originating with Hippocrates who stated that the male and female sperm were necessary for the formation of the embryo, was adopted and modified by Galen, and thus remained dominant until the middle of the 13th century, when Aristotle’s works were translated and disseminated in the West.\(^34\)

The medieval Islamic physicians quoted are: (1) Ibn Māsawayh (c. 777-857). (2) Al-Ṭabarī, author of a medical compendium called *Firdaws al-hikma* (Paradise of Wisdom),\(^35\) compiled in 850.\(^36\) The remedies that Narboni cites in his name are often of a magical nature. (3) al-Kindī (9th cent.). About the consumption of *al-qamāshīr*, a kind of mushroom that induces a seizure,\(^37\) he remarks: “When one rends one’s clothes, cries

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\(^{31}\) Fol. 13a. For other quotations from Aristotle see fol. 72b: “a dark woman is more intelligent and her milk is of a better quality, this is what Aristotle said in his *De animalibus*.” See as well fols. 73a-b for a quotation from Aristotle featuring in Maimonides’ *Pirque Mosheh.* For a last quotation see fol. 102a.


\(^{33}\) Fol. 64b. For similar tests recommended by Hayyim Vital, see my forthcoming article “Hayyim Vital’s *Kabbalah ma’asit ve-Alkimiyah* (Practical Kabbalah and Alchemy), a seventeenth century ‘Book of Secrets’,” *Journal for Philosophy and Kabbalah*.


\(^{35}\) Ed. by M.X. Siddiqi, Berlin 1928.

\(^{36}\) For quotations see, for instance, fols. 8a; 13a-14a; 20b; 22b; 25a.

\(^{37}\) Cf. Ibn al-Bayṭār, *al-jamiʿ il-mufradāt al-adwiya wa-l-aqhdhiya*, Beirut 1992, part 3, p. 283: “*al-qamashir* this is identical with *al-kamashir*; I will treat under the letter kāf; al-Kindī said in his book on poisons that it is a kind of mushroom.”
out loudly, and beats one’s head against the wall, the best remedy is to
induce the patient to vomit immediately, take a laxative, and drink juice
of quinces, extract of the meat of a young goat, and fragrant wine mixed
with water.” 38 According to Ibn al-Bayṭār this remedy derives from al-
Kindī’s lost Book on poisons. 39 (4) al-Rāzī (865-935), the most quoted
Islamic physician. Two of al-Rāzī’s works are named, Sefer ha-sod (Book
of secrets), 40 and Ṣegullot (magical remedies). 41 (5) al-Zahrawī (10th
cent.), 42 about whom Narboni cites the following interesting case-
history:

Al-Zahrawī said that he was [once] stung by a scorpion fish (‘agrav ha-yam)
in his little finger. The pain rose to his wrist, then to his upper arm and
shoulder, and became severe. He took “tiryāq al-fārūq” 43 and similar
antidotes, but they did not help. But when he repeatedly applied wheat
bran, which had been kneaded with hot water, to the spot, the pain subsi-
ded. However, he remained unable to move his little finger for a long
time. Fishermen told him that the finger or hand can wither as a result of
its sting. 44

Moshe Narboni comments that cauterisation of the spot is without any
doubt the best remedy. (6) Al-Tamīmī (10th cent.). Narboni quotes
Maimonides’ Pirqe Mosheh ba-Rephu’ah (Medical aphorisms) in reference
to al-Tamīmī’s compound for strengthening vision, and introduces the
Muslim physician as: “Al-Tamīmī she-haya be har ha-bayit” (al-
Tamīmī who was on the Temple Mount). 45 Al-Tamīmī hailed from
Jerusalem and composed a compendium on foods and drugs, often
illustrated with his own observations, drawn from his practice in
Jerusalem. 46 (7) (al-)Malaki, in fact a reference to al-Kitab al-malaki (Liber
Regius) composed by al-Mājūsī (10th cent.). 47 (8) Zedat ha-Derakhim,
which possibly refers to Moses ibn Tibbon’s Hebrew translation of Zād
al-musāfir wa-qūt al-hādir (Provisions for the Traveller and the Nourish-
Moshe Narboni cites four Jewish physicians in Sefer Orah Hayyim: (1) Ishāq b. Sulaymān al-Isra‘īlī (c. 855-955). (2) Rabbeinu Mosheh (Moses Maimonides; 1135-1204). Narboni frequently draws upon his Medical Aphorisms, Pirgei Mosheh ba-Refu‘ah. A quotation of particular interest for scholars involves a magical remedy for hard abscesses: ‘If you bring the markasit stone to a red-hot glow with fire and sprinkle vinegar there on and place it on an organ in which a hard abscess is present, you will observe something amazing from the vapor which ascends (from this stone) and from its dissolution as if it were acting by magic.’ Narboni notes that ‘Rabbeinu Mosheh related this in his Sefer ha-Moreh (Moreh Nevukhim) and explained it by quoting the Sages’ dictum: ‘whatever is used as a remedy is not [forbidden] on account of the ways of the Amorite’.” A comparison of Narboni’s quotation with Nathan ha-Me’ati’s Hebrew translation of the Aphorisms (ed. Muntner) shows that the former is dependent on the latter:

48 Fols. 62b, 79a. See Steinschneider, op. cit., note 1 above, pp. 704-5. I am preparing a critical edition of this important medical compendium; my edition of book six is forthcoming. The question if Moshe Narboni actually consulted this particular translation can only be solved by a linguistic comparison, which I could not carry out for lack of MS material. See, however, below, implicit sources, for my argument that Narboni consulted the original Arabic text of this compendium.

49 Fols. 48a, 50b, 52a; see Ullmann, op. cit., note 43 above, p. 273.

50 For the sons see Ullmann, op. cit., note 43 above, pp. 162-3.


52 Fol. 57b; see as well 102a, 125b.

53 Fols. 61b, 115a, 119b, 120a, 120b, 121a, 125b.

54 Fols. 132b; 137a.

55 For this stone, the name of which is a transcription of Arabic marqāšīthā, see Eihard Wiedemann, Aufsätze zur arabischen Wissenschaftsgeschichte, 2 vols., Hildesheim, 1970, vol. 1, pp. 714-6.


Moshe Narboni

Even margashita ke-she-telubban ba-esh we-yazzeh 'aleha homez we-tusam 'al ha-
ever she-yesh bo-mursa qashah, 'al ha-eid ha-oleh mimmena tir'eh be-
hattakhahah davar mufla ke-illu hu mi-
pe'ulloth ha-keshafim.

Nathan ha-Me'ati

Even margashitah ke-she-telubban ba-esh we-yazzeh 'aleha homez we-tusam 'al ha-
ever she-yesh bo-mursa qashah, ('al) mi ha-eid ha-oleh mimmena, tir'eh, u-mi
hattakhahah davar mufla ke-illu hu mi-
pe'ulloth ha-keshafim.

The minor variants can be ascribed to different MSS traditions. Unfor-
tunately, one cannot conclude from Muntner's eclectic edition which
lacks a critical apparatus, precisely which MS or MS tradition of Nathan
ha-Me'ati's translation Narboni consulted. (3) R. Abraham Caslari:
Narboni relates that he studied with Caslari as a young man,59 and that
he based his discussion of fevers on Caslari's treatise.60 Narboni also
accuses him of plagiarism, because he claimed to have invented
"diayoma", which he derived from the previously mentioned Zedat ha-
Derakhim, as well as other remedies which he borrowed from al-Râzi's
Aqrâbadhîn (medical formulary).61 Narboni concludes that Caslari "did
not treat his profession with wisdom" (aval-be-chokhmah lo hityahes el ha-
melakhah).62 (4) From R. Solomon ibn Ayyub the physician (13th cent.),
Narboni quotes a salve for pain caused by cold.63

Narboni cites only two Christian physicians: (1) Arnav de Villanova
(= Arnold of Villanova; d. 1311). Narboni gives the recipe for a salve
composed by Arnold, and remarks that he used it to treat a wound
behind his daughter's ear, when all the other remedies failed.64 (2) Gordo
the physician (= Bernard of Gordon; fl. 1305).65

To conclude this survey of citations, I would like to focus on two of
Narboni's quotations from Rabbinic literature: (1) Discussing the treat-
ment of a disease called "ha-ta'awah ha-kalbi'it" ('canine hunger' =

60 Fol. 123a.
62 Fol. 123a. For a different translation see Steinschneider, Virchow's Archiv, 44 (1867), p. 123: "aber in der Weisheit (Philosophie? oder Theorie?) kam er der Kunst nicht
gleich."
63 Fol. 88b. For R. Solomon ibn Ayyub of Béziers see Gross, op. cit., note 1 above, p. 100.
64 Fol. 89a-b. Arnald of Villanova was a leading medical figure in Montpellier during the 1290s.
65 Fol. 89a. The quotation is a recipe for a plaster for all kinds of wounds.
Arab.: al-shahwa al-kalbīya), which he defines as "bulimy, an intense lust for and pursuit of food, natural to dogs, whereby one eats but does not become satiated," Narboni recommends regular consumption of honey and avoidance of astringent foods. He then remarks: "how very wisely acted the Sage [R. Yoḥanan, who states]: ‘Once I was seized by a ravenous hunger, whereupon I ran to the eastern side of a fig-tree, thus making true in my own case: Wisdom preserveth the life of him who hath it.’" Bulimy and "canine hunger" actually represent two distinct types of hunger, which are often confused. Whereas the hunger associated with bulimy may be temporarily assuaged, "doglike hunger" is continuous.

In his discussion of leprosy Narboni remarks that if one has sexual intercourse with one’s wife on the first day of her period, the next child born will be leprous for as long as twelve years, for every hour that has passed of the day or night is equal to half a year. If one has sexual intercourse on the second day, the child will be leprous from his 13th until his 24th year, and if on the third day, he will be leprous from his 25th until his 36th year, and if on the fourth day, he will be leprous from his 37th until his 48th year. Sexual intercourse after four days, causes al-baras ([permanent] leprosy?). This statement by Narboni is a curious variant to that in Midrash Tanhumah, which states that coitus on the first day causes leprosy until the age of ten, and so forth, until 70 years. Yet another variant is quoted by Joseph ben Meir ibn Zabara (12th century): "They that understand the healing art have said: ‘If one lie with his wife during her period, and she conceive of that seed, the offspring will ever be leprous. If it be the first day of her period, it will be leprous in its childhood; if the second day, in its youth; if the third, in its prime; and thereafter in old age.’" Ibn Zabara also gives an explanation of the reason according to medieval medical theory: "The reason is that the menstrual blood, being warmer than the remaining blood of the body, for that it is the refuse of the blood and of evil humors, is mingled with the seed whence the fetus is formed, whose nature therefore becometh as the nature of that blood; and at the periods mentioned the blood doth rot and become rancid, whence leprosy ariseth.'"
Implicit sources

One important source which Narboni not only cites explicitly but also consults without explicit reference, is Ibn al-Jazzār’s Žad al-musāfīr, which was translated by Moses Ibn Tibbon as Sefer Žedat ha-Derakhim. Indeed the anonymous scribe of MS Munich 243 discerned this source: “I have looked into this book and concluded that it is very honorable. It contains many different remedies and was composed by the scholar [and] physician Maistre Vidal BALGM from other works, such as Sefer Žedat ha-Derakhim and the like.” One example of Narboni’s dependence on Ibn al-Jazzār’s work is his discussion of the various techniques to extract the placenta from the uterus. Narboni, like his predecessor, mentions five techniques: (1) to induce sneezing by means of soapwort, while the mouth and nostrils are kept closed. (2) to induce vomiting with a compound drug, such as water with ashes and marshmallow. (3) to lick saffron, prepare a little ball of it and hang it on the patient. (4) the application of various pessaries. (5) fumigations, for instance, with the eye of a salt-water fish, a horse hoof, cat excrement or harmel. When one compares Narboni’s Hebrew translation with that of Moses Ibn Tibbon, it becomes clear that the two are independent efforts:

Moshe Narboni

We-ameru im telaqqeq ha-issah me ’at karkom be-ta ’ahe mimennu ’iggul kemo luz we-tiitel aleha o ’al behemah abar ha-ledah az teze ha-shilyah.

Moses Ibn Tibbon

U-khe-shet-lacay ha-issah za’faron we-ta’aseh mimennu kemo luz we-yltu oto ’al ha-issah o ’al gav ha-behemah abar ledah hinneh hu yozi ha-shilyah.

Translation:

They said: If the woman licks a little saffron, and makes it into a circle like an almond, and hangs it on her or on a beast of burden after the parturition, the placenta will emerge. And when the woman chews saffron and makes it like an almond, and one hangs it on the woman or on a beast of burden after the parturition, it will drive the placenta out.

Another example of Narboni’s dependence on Ibn al-Jazzār’s work is his discussion of different means to increase one’s sexual desire. Some of the techniques parallel those Ibn al-Jazzār attributes to Polemon, such as

71 Fol. 26a.
72 See op. cit., note 34 above, pp. 311-2.
73 This magic preparation was originally derived from al-Tabari’s Firdaws al-hikma, p. 280 (see n. 35).
74 These fumigations also figure in al-Tabari’s Firdaws al-hikma (ibid.).
75 Fol. 68b.
76 MS Parma 1044, fol. 108a.
77 Fol. 60a.
“fondling the breasts” (mishshush ha-shadayim), and “sucking the tongue” (mezizat ha-lashon). Again, however, Narboni’s terminology differs from that found in Ibn Tibbon’s Hebrew translation. Instead of “mishshush ha-shadayim” for Arabic ghamz thadyin, Ibn Tibbon has “ha-issuy shadayim”.

Only a careful study of the other extant translations of the Zad al-musafir, namely, Ya’ir Nativ and Zedah la-Orehim, will reveal whether Narboni depended on them. Unfortunately, I was not able to examine MSS of these translations. However, from Steinschneider’s remark that both translations were made from the Latin, and that they are replete with Latin terms in transcription, it can be deduced that Narboni did not consult them, since his text does not contain such Latin terms. Thus, one may tentatively conclude that Narboni himself translated Ibn al-Jazzār’s work from the Arabic.

Another work written by Ibn al-Jazzār and consulted by Moshe Narboni is the “Risāla fi l-nisyān wa-‘ilājīhi” (Treatise on Forgetfulness and its treatment), of which two Hebrew translations are extant. Among the passages adapted from the Risāla is the following:

<table>
<thead>
<tr>
<th>Ibn al-Jazzār</th>
<th>Nathan ha-Me’ati</th>
<th>Moshe Narboni</th>
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<tbody>
<tr>
<td>Wa-dhakara Jālūnūs annahu qad ša’ān mina l-nisyān *bi-l-jandabādastari ma’a filfītin ahyada [wa]-ma’ā ma’in wa-‘asalin wa-qala innahu in khulīna l-jandabādastaru bi-duhni qiththā’ī l-ḥīmārī aw bi-zaytīn ʿatīqin wa-yuṭā bihi mu’aḥharu l-dimāghti fa-yatanaʃʃuqna bi-dhālika.</td>
<td>we-zakhar Galenus she-hu ṭippa min ha-shikhẖah bi-shetiyya mi-ha-gastor ʾim ha-pilpel ha-lavan be-mayim u-devash o be-shemen qissẖuʾi ha-hamor o be-zayit yashan she yerutheh be-zeh meʾuḥhar ha-moʾah wi-yeqabbelu toʾelet bo.</td>
<td>we-zakhar Galenus she-hu ṭippa min ha-shikhẖah bi-shetiyyat ha-gastor ʾim pilpel laovan be-mayim u-devash we-[im] hubbash ahorei ha-noʾah be-shemen qissẖuʾi hamor o shemen zayit yashan o ha-mevushkal harbeh we-shemen quṣẖ [yeqabbelu toʾelet bo].</td>
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78 See my edition of book six, note 48 above.
79 Bk. 6, ch. 1; MS Dresden 209, fol. 218b.
80 MS Cambridge University Library Add. 629, fol. 169a; cf. MS Berlin 239, fol. 83a: “issuy shadayim”.
81 Steinschneider, op. cit., note 1 above, pp. 703–5.
82 The possibility remains that Narboni consulted an unknown, lost Hebrew translation.
84 See my forthcoming edition. This passage is missing from the anonymous Hebrew translation.
85 Fol. 12a.
Translation:

Galen said that he had cured [someone] of forgetfulness by means of castoreum with white pepper, water and honey; and if one mixes castoreum with oil of elaterium or with aged oil and rubs the posterior part of the brain with it, one will derive much benefit from it. 86

Galen said that he cured [someone] of forgetfulness with a drink of castoreum mixed with white pepper, water and honey; and if the posterior part of the brain is plastered with oil of elaterium or with aged or well-cooked olive oil and oil of costus (they will derive much benefit from it).

It is difficult to know whether Narboni drew upon the original Arabic text, Nathan ha-Me'ati’s translation or another translation that is no longer extant. However, Narboni’s dependence on Nathan’s translation is evident in another passage in which identical technical terminology appears in both texts:

Nathan ha-Me’ati

...yuddequ wi-yenuppu
wi-yeluttetu be-shemen
shaged wi-yuqqah...wi-
ye'orav...we-
yulash...we-
yuzna?...we-
y'a'amod...u-mehadded
ha-sekhe\textsuperscript{87}

Anonymous translator

...tadeq we-tanif we-
tishqo u-te'arev be-
shemen shaged...u-
te'arev...we-talush...we-
tazni'ehu...we-yisha\textsuperscript{er}

Moshe Narboni

...yuddequ wi-yenuppu
wi-yeluttetu be-shemen
shaged we-yuqqah...wi-
ye'orav...we-
yulash...we-
yuzna\textsuperscript{88}...we-
y'a'amod...u-mehadded
ha-sekhe\textsuperscript{88}

Translation:

[These drugs] should be pounded, sifted, and mixed with

pound, sift, pulverize and mix with almond

oil, and mix... and


\textsuperscript{86} I have not found this prescription in Galen’s writings.

\textsuperscript{87} This compound drug does not feature in the Arabic text of the \textit{Risāla}. For a discussion of its origins see my forthcoming ed.

\textsuperscript{88} Fol. 12a.
almond-oil; then one should take... mix it..., knead it..., put it..., and leave it. It sharpens the mind

In light of his obvious dependence on Nathan’s translation, the discrepancies in the previous passage must be attributed to copyists or to the editorial hand of Narboni himself.

Another important source consulted by Moshe Narboni is Ibn Sīnā’s *K. al-qanūn fī l-tibb*. García-Ballester claims that this work was very popular among the Jews of Christian Castile from the beginning of the 14th century, and among the Jews of the Provence and Catalonia. Another important source consulted by Moshe Narboni is Ibn Sind’s *K. al-qanūn fī l-tibb*. Garcia-Ballester claims that this work was very popular among the Jews of Christian Castile from the beginning of the 14th century, and among the Jews of the Provence and Catalonia. Narboni’s discussion of poisonous snakes, which is preceded by a section dealing with lethal poisons, seems to be dependent on Ibn Sīnā’s work. The inclusion of information on poisons in a medical compendium is not so odd, especially when we recall that in 14th century Spain poisons were, as McVaugh remarks, “understood to be in common use, and physicians were expected to respond to the threat they represented, since poisons were generically akin to medicines. Nor was it just the powerful who feared poison: the preoccupation was alive at all levels of society. Poisons were indeed in use at court, in the monastery, and in the home. The 14th century, one Catalan historian has written, could well be called the century of poisons.” Narboni divides poisons into three classes—mineral, vegetable, and animal—and two qualities, hot and cold. His description usually follows the pattern: a. identification of poisonous substance; b. description of symptoms; c. method of treatment. A similar scheme of classification and description is found in Ibn Sīnā’s *K. al-qanūn fī l-tibb*.

The following section on poisonous snakes is introduced by a remarkable note in which the author offers a theological justification for his detailed description of the snakes:

A wise man should be careful not to fight with animals until he knows their nature. This holds true for [fighting with] men, all the more so [for] animals, which are on the same rank as men. One should not forget the

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primordial hatred of the snake who caused death through Eve, [so that] harm occurred to Adam. And because there are many different kinds of evil [snakes], I will describe them for you so that you will be very careful, for Sama’el, who has the form of a camel as long as man is weaned (ki hu kidmut gamal kol yemei higgamel ha-adam), rides on them and bites one’s heels.92

The image of Sama’el as a satanic figure riding on a camel-like snake and causing the fall of Adam, occurs in Rabbinic literature.93 Subsequently, Narboni presents a classification of snakes: (1) those who have “horns” (ba’alei qarnayim; cerastes vipers).94 Their bite causes the victim’s blood to burst from the orifices and veins. (2) al-still.95 (3) Snakes which jump and throw themselves on their pursuers. (4) Snakes which spit; they soften the spittle with which they kill, between their teeth. (5) Crawling snakes which move through the sand as a fish moves through the water. (6) al-malika (basilisk).96 Although Narboni’s text is corrupt, it can be reconstructed from Ibn Sīnā’s work:

Moshe Narboni

Ibn Sīnā

al-malika, mukallala al-ra’s, orkah mi-
het zeratot ʿad gimel, ve rosham ... u-
mī she-nafal reʾuto ʿaleiha mr-raḥoq met .../f, ve-yamut kol mi she-yiqrav be-oto
ha-met97

...al-malika li-annahā mukallalatu l-
raʾi, ʿīnāluḫā shibrāni ilā thalāṯatīn
wa-raʾiṣuḥā ḥāddūn jiddan...fa-mon
waqaʾaʿalayhi baṣarūhā min baʿidīn
māta wa-layṣa kama yuqālu inna man
waqaʾaʿalayhā baṣaruḥu māta...wa-
mūla kullu mā yaqrābu min dhālika l-
mayīti mina l-hayawanāt.98

92 Fol. 99b. Man’s weaning may refer, as Eric Pellow suggests, to his “recompense”—i.e., all the generations after Adam’s sin. 93 See Bereshit Rabba, 19; Pirqe de R. Eli’ezer, 13, 21; Sefer ha-Zohar, I, 263b; II, 236a, 243a, 268b.
94 From Arabic “al-muqarrana”. These are the snakes belonging to the genus of Cerastes, poisonous snakes, recognizable by glands like protrusions above their eyes.
95 The identification of this snake is unknown; cf. E.W. Lane, Arabic-English Lexicon, I, 1-8, London 1863-1879, p. 1710; “a serpent, or a serpent against which charming is of no avail, or a serpent that kills at once when it bites”; W.J. Wilson, Al-Jāḥiz and Arabic zoology, PhD, University of Utah 1965, pp. 271-2: “J (al-Jāḥiz), D (al-Dāmīrī), is a dark brown viper, which cannot be charmed. Malouf says it is the asp or cobra Naja spp.”
96 Fols. 99b-100a. The Hebrew term is a loan translation of the Arabic Bāṣālīqūs, which is a loan translation of the Greek basilikos; cf. Ullmann, op. cit., note 43 above, pp. 336-7.
97 Fol. 100a.
98 Op. cit., note 91 above, Bk. 4; Maqala 3, Fann 6, p. 241. Unfortunately I have not been able to compare Narboni’s text with the existing Hebrew translations of the Qamūn, since I had no access to them. For the Hebrew translations see Steinschneider, op. cit., note 1 above, pp. 679-680, and the revised list by Richler, op. cit., note 89 above, cit., note 89 above.
Translation:

basilisk; its head is crowned; its length varies from two until three spans; its head [is very sharp]; if its gaze falls on someone from afar, he will die; and what is said that if someone’s gaze falls on it from afar, he will die; and what is said that if someone’s gaze falls on it from afar, he will die, is not true; and if someone else will approach the dead person, he will die too.

The story of the mythological animal called the basilisk may be traced to Pliny, and has a long written tradition in ancient and medieval Western culture. In the 13th century the analogy between the gaze of the basilisk and that of a menstruating woman was widely disseminated through the De secretis mulierum of pseudo Albert the Great. Subsequently, this motif figured in the well-known story of the ‘Venomous Virgin’, which spread throughout Europe and became one of the most important medieval gynophobic traditions.\(^{100}\) (7) \(\text{al-afā'}^{2}\text{101}\); “Some are thick in the middle and thin from their neck until their head, with black dots.” (8) \(\text{al-ballūjī}^{102}\); “Of malignant odor.\(^{103}\) Their bite causes stripping of the skin.” (9) \(\text{ha-mazmī'īm}^{104}\); “Their bite causes a fierce burning [sensation] (ha-serefah we ha-lehavah) [in the stomach];\(^{105}\) although the victim drinks continually, his thirst is not quenched.”\(^{106}\) Moshe Narboni concludes

\(^{99}\) Cf. Albert the Great, Man and the Beasts, transl. James J. Scanlan, New York 1987, p. 397: “Furthermore, it kills by its gaze, for everyone on whom its fixed stare falls dies as a result. Pliny and some other writers maintain that the basilisk strikes a man dead with its gaze only if it spies the man first; contrarywise, if the man makes the initial visual contact, his gaze kills the basilisk. I do not think this is true. Neither Avicenna nor Sennetion, both of whom are natural philosophers who speak from experience, tell this story.”

\(^{100}\) See Jacquart-Thomasset, op. cit., note 34 above, pp. 74-5; Jon Arrizabalaga, “Facing the Black Death,” op. cit., note 4 above, p. 264.

\(^{101}\) Arabic loan-translation for Greek echis and echidna (viper) Ullmann, op. cit., note 43 above, p. 336).

\(^{102}\) Arabic loan-translation for Greek druinas (serpent living in hollow oaks), cf. Ullmann, ibid.

\(^{103}\) Translation according to Ibn Sinā, op. cit., note 91 above, p. 246: “rā’īḥa khabīṭa”. The Hebrew ha-meguwwenet ha-rē’āḥ is corrupt.

\(^{104}\) Hebrew loan-translation of Arabic al-mu’allītīsah which is a loan-translation of the Greek ḍeftas (venomous serpent, whose bite causes intense thirst; cf. Ullmann, op. cit., note 43 above, p. 336).

\(^{105}\) Text corrected according to Ibn Sinā (op. cit., note 89 above, p. 245: “Their bite causes [a sensation] of fierce burning in the stomach (yaktirīq hajnahu wa-yaltahīb).”

\(^{106}\) The Hebrew “u-le-iswr mi lishhot mayim we-lo yirweh zema’o” is corrupt. My translation is according to the Arabic “fa-lā yarwā mīna l-mā’ī bāl lā yazālū yashrabū”; cf. Ibn Sinā, op. cit., note 89 above, p. 245.
this chapter with the remark that there are many other kinds of snakes, and that a wise man does not fight them, but rather flees from them.

Narboni also informs us about the healing properties of a snake. He remarks that when he was in Perpignan a wealthy citizen of Villafranche de Conflant, who possessed a vineyard with a small house on the outside of the city, was stricken by leprosy. The municipal authorities did not put him in the local leper house since his house was far from the city. After the grape harvest this leper drank some new wine from an earthenware jug, and his health was restored. Inspecting the jar, he discovered the bones and skin of a snake that had drowned in it. During the Middle Ages leprosy was considered an extremely contagious disease, transmitted by physical and sexual contact and by air. It was, moreover, regarded as a form of divine retribution, manifesting itself in the extremes of bodily disfigurement. When a jury of laymen judged a person to be leprous, he was segregated from society in a leper house. Only in the 14th century that we find evidence of the medicalization of this disease. In the Crown of Aragon, for instance, the old theological stance was abandoned and the examination was left to doctors.

Medical aspects of Sefer Orah Hayyim

Narboni's discussion of different diseases generally follows this pattern: 1. pathology. 2. aetiology. 3. symptology. 4. treatment. An example is: "Forgetfulness (al-nisyān): Loss of memory, caused by cold and moisture in the posterior part of the brain; its symptoms are high fever and sleepiness, heaviness in the posterior part of the brain, yawning, weakness, and moisture streaming from the brain called "lethargiah". Its treatment: sharp clysters, sneezing...balādhor (Semecarpis anacardium, marsh-nut)..." This structure is common to medieval Arabic medical literature; it features, for instance, in Ibn al-Jazzār's Zād al-musāfir, and in Ibn Sinā's K. al-qānūn.

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107 Fols. 103b-104a. According to pseudo Galen's De theriaca ad Glauconem II, the consumption of viper flesh is a wonderful remedy for those suffering from leprosy; cf. Maimonides, op. cit., note 45 above, XIX, no. 108.
109 Fol. 11 b. Balādhor was a very popular drug for forgetfulness throughout the Middle Ages. Some physicians, however, warned emphatically against its use, since it could be fatal when applied unjudiciously; see the introduction to my forthcoming edition of Ibn al-Jazzār's Risāla (n. 83 above).
The quotation also shows that Narboni's medical theory was that which as generally accepted by the medieval physicians, and which ultimately stems from Galen, whose teachings had a predominant influence on medieval medicine. Galen's discussion is based on his conception of health as dependant on the balance of the four humours of the body and their qualities. These humours and their basic qualities are blood (warm), phlegm (moist), yellow bile (dry), and black bile (cold). When their balance is disturbed, illness results. According to Galen's principle contraria contrariis curantur, hot remedies were prescribed for diseases caused by cold and vice versa. This rule is mentioned explicitly by Narboni in the context of a therapy for a squinting child (netiyat bavat ha-ʿayin): "At night place a lamp in front of the child on the side opposite [to the direction of the squinting eyes], and in the daytime [place] nice things. For the opposite is cured by the opposite (Ki ha-hephekh ba-hephekh mitrappe)."

In Sefer Orah Hayyim Narboni appears as a practising physician who not only conducted many experiments and tested traditional drugs, but also devised new remedies. He quotes Maimonides' report that "the fruit of the tree called AGRYNS? sexually arouses women so much that they shout with joy just like cats," and remarks: "It seems to me that Maimonides has omitted one condition [necessary for its successful application], for I have tested it, and it did not work that way." In another comment based on his experience, Narboni recommends a compound plaster that he devised (we-ani hiddashti zeh ha-tahboshet).

His critical attitude towards the practices of certain surgeons shows itself clearly in his discussion of the treatment of a wound accompanied by a fracture:

When the fracture is accompanied by a wound one should leave a place open so that the pus can come out, and one should put cotton wool on it. Herein most so-called surgeons (ha-mithakkemim bi-melekhet ha-yadayim) are mistaken, because they put the drug on the fracture and the wound, bandage it and leave it like that for many days until a hot abscess is formed, so that the member [in question] is corrupted and the patient dies. I have already seen this many times.
In Narboni's time there were two distinct classes of medical practitioners: (a) the physicians, who were university-trained, formed the medical elite, and had abandoned the practical exercise of their trade; (b) the lay surgeons, who were usually illiterate, trained by apprenticeship, and had their closest occupational links with the barbers. The separate trades of barber and surgeon in the course of time coalesced and were practiced by the barber-physician. This process took place in Spain in the very same period that Narboni was active as an itinerary physician. The two classes of medical practitioners were involved in a fierce competition, both trying to expand the domains of their medical treatment. In this context Narboni's younger contemporary Henri de Mondeville (c. 1260–c. 1320) scorned the barber-surgeons for their lack of theoretical knowledge: "...it is evident that surgeons are proud and pompous, but at the same time quite unreasonable and completely ignorant; if they know anything, it is from us doctors that they have learned it; they are ill-humoured, cruel men, and they demand and carry off fat payments." According to McVaugh, this portrait sketched by de Mondeville correctly described the situation in Languedoc and Catalonia; however, in the Crown of Aragon at the beginning of the 14th century, the two professions functioned as a single occupational community. Surgery, like medicine, was becoming a text-based, academic subject, following the Italian tradition of the 13th century. The prevalence of incompetent medical practitioners in Cervera, one of Narboni's places of residence, is attested in the answer of the infante Pere (the future Pere III, ruler of Catalonia-Aragon, d. 1387) to a complaint of the local physicians. The infante agreed that the town might require an examination of anyone wishing to practice medicine unless he already had at least a bachelor's degree. Narboni's remarks on the treatment of wounds reflect a controversy evident in medieval surgical writing. A certain degree of suppuration was taken for granted as a normal stage in the healing of wounds. Surgeons distinguished between thick white pus, indicating an infection that will heal, and watery fetid pus, indicating a type of infection likely to be followed by gangrene and death. The first type of pus was therefore considered as a necessary stage in the healing

117 Quoted by Pouchelle, ibid., p. 15.
118 McVaugh, op. cit., note 5 above, p. 113.
process. Consequently, ancient and Islamic physicians recommended, as Siraisi remarks, "using unguent to bring on this stage and keeping the wound open until healing by secondary intention—from the depth of the wound to the surface—took place." In Jewish Responsa literature mention is made of the so-called method of fontanel, involving the insertion of a pea into the wound in order to prevent healing, and to promote the formation of pus. Other objects used for this purpose were hair, cords or threads. De Mondeville, however, had, following his master Theodoric, adopted the method of simply cleansing wounds with wine and closing it, so that the wound might heal without formation of pus. By refusing to allow wounds to suppurate Mondeville attracted the enmity and abuse of many of his colleague physicians and surgeons. If he had he not enjoyed royal protection he would certainly have been compelled, as he himself remarks, to abandon this treatment.

Although Narboni's statement is not unequivocal, it seems that he supports the generally accepted method of suppuration and condemns those so-called surgeons who do not leave the wound open but close it, so that gangrene or death results. A close parallel to Narboni's discussion of the treatment of a wound with a fracture can be found in the "De Fractura Caluae", composed by Berengario da Carpi (b.c. 1457).

**Autopsy**

Narboni relates a rare case of autopsy to establish the cause of death which was in Soria between 1355 and 1362:

A horseman from Burgos arrived here in Soria during the war. He who could not urinate, and was passing blood, while he looked very healthy. I made him all kinds of natural and magical remedies for this, but to no avail. When he had died, they cut him open and found that the kidneys were so far that they had closed up the ureters, while his bladder did not contain any urine at all.

It is probable that Narboni had no moral qualms in relating this autopsy because the person involved was a non-Jew. In the case of Jews, however, religious law, enjoins the utmost reverence for the human body

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121 Zimmels, op. cit., note 89 above, pp. 133-4.
122 See Siraisi, op. cit., note 120 above, pp. 167-8; Pouchelle, op. cit., note 116 above, pp. 57-9; Lawrence, op. cit., note 116 above, p. 967.
124 Fol. 56b.
after death, and strictly prohibits dissection as a desecration of the corpse (nivvul ha-met). Only the duty of maintaining and saving life (pikku'ah nefesh) can overrule this prohibition. This kind of explanation is given for the autopsies recorded in the Babylonian Talmud, as, for instance, in Hulin 11 b, where it is stated that an autopsy may be performed on the victim of a murder in order to establish whether he was viable at the time of the assault. Were he not, no charge of murder could be laid against the assailant. It was only in the 18th century that the permissibility of dissection and autopsy for medical research and saving lives became an issue discussed in halakhic literature. In 1737 a Jewish medical student at the university of Göttingen asked R. Jacob Emden whether he could participate in the dissection of dogs used in the absence of human corpses. The Rabbi’s answer was that dissection, whether on animals or on human corpses, was forbidden on the Shabbath, and that, moreover, it was forbidden to derive any benefit from human corpses, even if they were not Jewish. In the same period a query was addressed to Ezekiel Landau (1713-1793) of Prague, with regard to the permissibility of performing an autopsy on the body of a Jew, in order to reveal the cause of death and thus find a cure for others suffering from the same malady. The questioner gave his reasons for permitting this, citing, inter alia, the embalming of Jacob. Landau dismissed his arguments but conceded that, should there be at the time of death, in the same hospital, another patient suffering from the same symptoms, so that autopsy could immediately help, it could be permitted on the grounds of pikku'ah nefesh.

In the medieval Islamic Middle East and Christian West dissections were very rare, since it was considered as a desecration of the human body which God entrusted to man for a limited period and which man must return to God intact. It was only in the third quarter of the 13th century that the practice of dissection, once common in Alexandria in the third century B.C., was revived in Bologna; in 1316 Mondino de' Luzzi published the first modern work on anatomy, following public dissections at Bologna University. It was then officially sanctioned—with restrictions that usually limited the procedure to the corpses of criminals—at Venice in 1368, at Montpellier in 1375, and at Lerida in 1391. The

126 Rabinowitz, ibid., col. 932.
case reported by Narboni is thus an early example of an autopsy carried out for establishing the cause of death. It is, moreover, unique in medieval Hebrew medical literature.

Magic and superstition

Although Narboni usually recommends natural remedies he does not hesitate to prescribe magical ones in difficult cases, such as that of the horseman from Burgos. Moreover, Sefer Orah Hayyim bears a strong magical character because of the lengthy quotations, often introduced as Segullot, from other writers, especially al-Ṭabarî and al-Rāzî. Narboni’s rationale for the use of magical means is possibly the same as that of the Sages, which he quotes, as we have seen above, in the name of the Ram-bam: “Whatever is used as a remedy is not [forbidden] on account of the ways of the Amorite.”

In the context of sexual impotence and its treatment Narboni discusses several cases of magical spells which probably hail from Pseudo ibn Ezra’s Sefer ha-Nisyonot. As a remedy for someone who cannot have sexual intercourse because he is bound by a spell, he recommends: stand, completely clothed, one hour in the midst of smoke of gum Arabic. Repeat this procedure in all the four corners [of your house] for nine nights. Narboni also suggests that the patient rub his penis with the compound of raven brain and sesame oil. Evil spells as a cause of impotence are frequently discussed in medieval literature, the principle source being the Pantegni by Constantine the African. Spells, especially those caused by witchcraft, were a common concern of contemporary 14th century medical authors in Montpellier. The theme of the bewitching of man and wife to preclude their sexual intercourse frequently occurs in medieval Hebrew literature, especially with reference to newly weds. According to various sources the dangers besetting bride and groom culminate at the moment of sexual union on the wedding night. For then

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129 See above under autopsy.
130 A similar recipe is quoted in Pseudo ibn Ezra’s Sefer ha-Nisyonot in the name of Dioscorides; see Sefer ha-Nisyonot: The Book of Medical Experiences Attributed to Abraham ibn Ezra, ed., translated and commented by J.O. Leibowitz and S. Marcus, Jerusalem 1984, p. 247: “if the gall of a black raven mixed with sesame oil is rubbed on the body which has been bound [by a spell] from [sexual intercourse with] women, it will help him.”
131 See Jacquart-Thomasset, op. cit., note 34 above, pp. 172-3.
the evil forces are most desirous to "frustrate the act responsible for the propagation of human life."\textsuperscript{133} Narboni reports that one may "bind" a man sexually by casting a spell on the penis of a wolf.\textsuperscript{134} This spell can be undone by holding the tooth of a dead person in one's hand.\textsuperscript{135} Another remedy involves eating three leaves of the anemone immediately prior to intercourse.\textsuperscript{136}

The following recommendation made in the context of Narboni’s discussion of hazirim (mumps), clearly belongs to the realm of superstition: "I will reveal to you a wonderful secret, part of nature: if you pass the hand of a newly-born child that is still [with his mother] on the birth-stool, over the neck of a pig (hazir), the hand of God will be upon him (i.e. he will be a prophet) for all of his life...I have tested it and found it to be true...."\textsuperscript{137}

\textit{Astrology}

While in the previous section we dealt with supranatural aspects of Narboni’s therapy, we will now examine his supranatural—i.e., astrological—explanations of the aetiology of certain diseases. Astrology was widely accepted by medieval scholars of Judaism, Christianity and Islam, despite the criticism of coreligionists, such as Maimonides. An indication of Narboni’s allegiance to astrology can be found in the following cure for a nose bleed: "Write $\text{WPYLH}$ on the forehead [of the patient]. The H indicates feminine [gender?]; the letters correspond to (?) stars and planets ($\text{ha-otiyoot haluqqot le-khokhavim u-le-mazzalot}$), and what is verified by experience cannot be denied."\textsuperscript{138} Narboni’s conception of the correspondence between the letters and the stars and planets stems from \textit{Sefer Yeziarah}, which remarks that the seven "double" consonants that take a dagesh are related to the seven planets and the seven days of the week, whereas the twelve simple consonants are related to the twelve houses of the zodiac and the twelve months.\textsuperscript{139} Narboni expresses his belief in astrology more explicitly in his remarks on the following quotation from al-Zahrâwi:

\textsuperscript{133} See Joshua Trachtenberg, \textit{Jewish Magic and Superstition. A Study in Folk Religion}, repr. New York 1975, pp. 48, 127; see as well my forthcoming article, op. cit., note 27 above.

\textsuperscript{134} For the same recipe see op. cit., note 130 above, p. 247.

\textsuperscript{135} For the same recipe see ibid.

\textsuperscript{136} Fol. 61a.

\textsuperscript{137} Fol. 88a.

\textsuperscript{138} Fol. 22a.

\textsuperscript{139} \textit{Sefer Yeziarah}, Perek 4, Mishnah 4; Perek 5, Mishnah 2.
Al-Zahrāwī said: I once visited a place called “al-qarya”, where people told me that if a wound—small or large—occurs to one of them any place on his body, the blood continues to stream from his body until he dies, and that most of them die in this way. I have never seen this anywhere else, nor have I found any reference to it in a book composed by the ancients. I do not know its cause, but it seems to me, though I have never tried it, that if it happens to someone, he should immediately cauterize the place until the bleeding stops.

Narboni cannot explain this disease which may be the condition now known as haemophilia, and therefore takes refuge in a supranatural (astrological) explanation of its aetiology: “In my opinion murderers lodge in that place, which falls under the dominion of [the planet] Mars, the two wolves, and the other maleficent stars. The treatment of this disease consists of exchanging bad for good by moving, for upon the choice of habitation depends the acquisition of the good and perfect; praised is God, the real Benefactor.” Narboni’s explanation is reminiscent of that given in a tract composed by the Italian clergyman and lecturer Augustine of Trent for “the pestilence of infirmities” which occurred in 1340. In this tract, Augustine interprets the events of 1340 astrologically, and makes predictions for the remainder of the year. As Thorndike remarks, the clergyman considered “the influence of the planet Mars and the appearance of two comets as evil astrological influences for 1340.”

The most popular medieval explanation for epidemics was the theory of the Great Conjunctions, promulgated by the 9th century Arab astrologer Abū Ma’shar (Albumasar). On this theory particular planetary conjunctions cause major political and natural disasters. One of the major disasters to which this theory was applied by 14th century physicians including Narboni, was the Black Death, the terrible plague which brought demographic disaster to Europe between 1349-

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141 Fol. 111a.
143 See R. Lemay, Abu Ma’shar and Latin Aristotelianism in the 12th century, Beirut 1962; Arrizabalaga, “Facing the Black Death,” op. cit., note 4 above, p. 245; idem, see as well R. French, “Astrology in medical practice,” op. cit., note 4 above, pp. 45-6. According to B.R. Goldstein and David Pingree, “Levi Ben Gerson’s Prognostication for the Conjunction of 1345,” Transactions of the American Philosophical Society, 80, part 6, p. 1, one of the main proponents of this theory was Mashāʾallah, a Jew of Baghdad, whose treatises in the original Arabic and in Hebrew and Latin translations influenced many medieval astrologers.
1353 and reduced its population by about a third. It led, moreover, to wide-spread persecutions and massacres of the Jews who were accused of causing the death of Christians by poisoning their wells and other water sources.\textsuperscript{144} Narboni introduces his discussion of plagues in general and the Black Death in particular, with a detailed account of their causes.\textsuperscript{145} These causes are, in terminology borrowed from Ibn Sinā, proximate (\textit{gerovot}) and primary (\textit{rishonim}). The proximate causes are related to the corruption of the air, while the primary causes are the activities and constellations of the stars (\textit{pe\'ullot ha-kokhavim u-mazzaveihem}). Narboni then remarks, with regard to the Black Death itself:

I witnessed last year—namely, 5009 (= 1349)—a great plague which had a lethal effect because of the pestilential fevers, with terrible toxic abscesses...in this whole region. ...Not one in thousand was saved, so as not to be affected. This disease already roams about in all parts of human settlement, but has not yet turned aside to the corners of the West. It started immediately after the conjunction of Saturn and Jupiter.\textsuperscript{146}

The same causal model was embraced by several 14th century physicians, above all the masters of the Paris school and the anonymous practitioner of Montpellier. The Compendium of the Paris masters, issued in 1348, states that the Black Death was generated by the unfavorable conjunction of Saturn, Jupiter and Mars in the sign of Aquarius in the year 1345, which was the first cause of a deadly corruption of the surrounding air.\textsuperscript{147} According to Jon Arrizabalaga, these masters based their argument on the \textit{De causis proprietatum elementorum}—then attributed to Aristotle, but actually a pseudo Aristotelian work—and on Albert the Great’s commentary on this work. In his commentary, Albert the Great remarked that the conjunction of Mars and Jupiter provokes “a great pestilence in the air, particularly when it happens in a warm and humid sign, as is the case now.”\textsuperscript{148} It should be noted, however, that the emphasis placed on celestial causes of the plague by the different physicians in western Europe varied widely, and that Muslim physicians were hesitant to attribute a major role to astronomical events.\textsuperscript{149} Narboni

\textsuperscript{144} See \textit{Encyclopaedia Judaica}, vol. 4, cols. 1063-8, s.v. “Black Death” (Haim Hillel Ben Sasson).
\textsuperscript{145} For a detailed account of the causes of the Black Death in western European treatises see Arrizabalaga, op. cit., note 143 above, pp. 248-264.
\textsuperscript{146} Fols. 124a-b.
\textsuperscript{148} Arrizabalaga, ibid.
acidly observes that foolish pseudo philosophers (*sekholei ha-mitpalsefim*) and all the more so physicians deny the causality of the stars because they think that the plague has, as it were, an intellect which is evident in its progress from region to region.\(^{150}\)

Narboni’s belief in astrology is confirmed by his philosophical writings. However, he rejected the absolute astral determinism as contradictory to the tenet of freedom of will. Furthermore, Narboni maintains that the observance of *Mizwot* enables man to escape the bonds of astral determinism.\(^{151}\)

The question of astral determinism and free will is reflected in his report of his escape from the Black Death. He states that when one flees from the corrupt air of the plague, one should not return home immediately after the plague ends; one or two months must elapse before the purity of the air is restored. Narboni records how, with Divine providence, he escaped the Black Death in this manner.\(^{152}\) Narboni’s flight from the plague followed a pattern established in medieval Jewish literature, which, according to Zimmels, offered the following rationales: (1) Flight helps one avoid fright. (2) Licence having been given to the angel of destruction, it does not discriminate between the just and the wicked. Thus, when the “rule of judgement” prevails one must flee or risk destruction. (3) Sometimes pestilence is decreed upon a particular town. (4) A man should not remain in a dangerous place.\(^{153}\)

Narboni’s flight also reflects the advice in 14th century western treatises on the plague, namely: “fugere cito, longe, et tarde reverti (flee quickly and far, return slowly). As Jon Arrizabalaga remarks, these preventive measures had three practical goals: (1) choosing a place protected from the pestilential air, (2) correcting or purifying the adulterated air, and (3) avoiding every risk of contact with infected people.\(^ {154}\) Muslim theologians, however, argued that one may not flee a plague-stricken land, since the plague is an act of God.\(^ {155}\)

\(^{150}\) Fol. 124b.


\(^{152}\) Fol. 124b.

\(^{153}\) TB *Shabbat* 32a; Zimmels, op. cit., note 89 above, p. 101.

\(^{154}\) Arrizabalaga, op. cit., note 143 above, p. 274.

\(^{155}\) Dols, op. cit., note 149 above, p. 110, remarks that this prohibition “appears to be a pragmatic medical principle, rather than a strictly theological. It may argue historically for the recognition of contagion-infection in the plague epidemics that afflicted the early Muslims and the desire to limit the spread of epidemics.”
The goals of medicine

The true goal of medicine is, according to Narboni, to secure the health of the soul, rather than that of the body. Thus following his discussion of the moral education of children, he remarks: "We have dwelt too long on this subject in the context of this work...but one should not consider it strange to combine the healing of the soul with that of the body, for the former ranks first; especially since our objective in the healing of the body is the healing of the soul. Our first desire is the healing of the soul, as God knows." Maimonides, a primary source of Sefer Orah Hayyim, espoused the same doctrine. In the introduction to his commentary on Pirkei Avot, known as the Shemonah Peraqim Maimonides remarks: "The real duty of man is, that in adopting whatever measures he may for his well-being and the preservation of his existence in good health, he should do so with the object of maintaining a perfect condition of the instruments of the soul, which are the limbs of the body, so that his soul may be unhampered, and he may busy himself in acquiring the moral and mental virtues." 157

Regimen of young children

Narboni's discussion covers several aspects of infant and child care: (a) Care of the new-born: The cord should be cut at [a length of] four fingers, and tied with a thread; a piece of cloth soaked in oil should be put over the tied end. The baby should be washed with luke-warm water and his limbs should be stretched. (b) Nursing: For the first three days the baby should not be nursed by its mother but by a wet nurse, three or four times a day. The infant should be allowed to cry a little before feeding begins. (c) Weaning: One should start in autumn and gradually wean the child. One should feed it leavened bread, and give it frequently in small amounts bread made from white wheat meal, almond oil, sugar, and dates. One should not give a young child any kind of meat. (d) Care of the toddler: One should not let him cry much, but soothe him with pleasant melodies and voices; one should protect him from sudden frightful sounds and frightening things. (ed) The wet nurse: She should be pretty, well-built, of a wide chest, intelligent, of a good character. Her breasts should provide a large amount of milk and her nipples should be wet. She should eat neither too much nor too little, and beware of salty,

156 Fol. 75b.
or sharp things, sexual intercourse and drunkenness. The milk of the wet nurse should be tasty. Its colour should be white and its smell pleasant; its consistency and quantity should be normal. One should test it by dropping it on one’s fingernail; good milk sticks to the nail and does not flow.\textsuperscript{158}

The regimen prescribed by Narboni in this section parallels and probably derives from that found in Islamic pediatric sources.\textsuperscript{159} The use of a wet nurse during the first three or four days, when the mother’s milk is said to be spoiled, presupposes the idea that the latter is generally preferable. This idea was embraced by the Muslim physicians who, following Galen, believed that character traits were transmitted via the milk. They also claimed that mother’s milk is ideal because it derives from the blood which nourished the foetus in the womb. The instruction to nurse the baby no more than three or four times daily is similar to restrictions found in Islamic treatises, and contrary to classical and medieval European writings which recommend breast-feeding on demand.\textsuperscript{160} The notion that the wet nurse should refrain from sexual intercourse reflects the ancient theory that coitus “spoils and diminishes the milk or suppresses it entirely by stimulating the menses or by bringing about conception.”\textsuperscript{161} Conception was considered highly dangerous to the nursing infant, since during pregnancy the woman’s good blood served as food for the foetus, while only the bad blood remained for milk. Moreover, coitus was said to “cool the affection toward (the) nursling by the diversion of sexual pleasure.”\textsuperscript{162}

\textit{Education}

Like the medieval Islamic pediatric treatises, Narboni’s work combines physical-medical issues with pedagogical ones.\textsuperscript{163} A section on the education of children is introduced by a comparison of the soul of the new-born child with a tablet ready to be inscribed with God’s writing, the primary intelligibles \textit{(ha-muskalot ha-rishonot)}. It is therefore necessary, argues Narboni, to engrave upon it eminent virtues, ethical conduct, and

\textsuperscript{158} Fols. 72a-b.
\textsuperscript{159} Cf. the relevant section in Ibn Sin\=a, op. cit., note 91 above, pp. 150-1; Ibn al-Jazz\=ar, \textit{K. siy\=asat al-sib\=yan wa-tadh\=irihim} (On the education and regimen of children); Ed. by Muhammad al-\textit{H}abib al-H\=ilah, Tunis 1968, pp. 60-74.
\textsuperscript{162} Gif\'adi, ibid.
\textsuperscript{163} See Gif\'adi, op. cit., note 161 above, p. 30.
the preservation of the necessary “acquisitions” (shemirat ha-qinyanim ha-hekhrayim). The metaphor of the soul as a tabula rasa, which also occurs in the epistles of the tenth century Brethren of Purity in Basra and in al-Ghazâlî’s Ihyâ ‘Ulûm ad-Dîn,164 is strongly reminiscent of the “tabula memoriae”, the metaphor of memory as a written surface which is so old and so persistent in all Western cultures that it must “be seen as a governing model or ‘cognitive archetype’.”165

For Narboni, the elements of time and custom are of paramount importance in the education of children. One should start to instruct them as early as possible, so that the lessons will become second nature, and cannot be easily rejected at an advanced age.166 The first phase of the curriculum consists of: (a) Prayers and songs of praise (tefillot ve-tishbâhôt), (b) Grammar and language (dikduk ve-lashon), (c) The study of the Torah, and (d) Study of the practical sciences (hokhmot hergeliyot). In the second phase the student enters the “house of the king” (beit ha-melekh)—i.e., the study of logic and the natural sciences (hokhmat ha-leva). Finally he enters the “innermost house of the king” (beit ha-melekh ha-peni’mî) “Holy of Holies” and, through the study of metaphysics (hokhmot ha-olah), is transported to the “world of reason” (śalam ha-sekhel).167

This kind of curriculum suggests an ideal way of life rather than an actual academic curriculum. It should not be construed as a syllabus for popular Jewish education, but rather as a curriculum devised by philosophers for enlightened autodidacts. Similar programs were proposed by medieval Spanish philosophers, such as Joseph Ibn Aknin (c. 1150-1220) and Judah Ben Samuel Ben Abbas (13th cent.). For these theoreticians the aim of education was “to enlighten the mind, to discipline the character and to prepare the soul for its ultimate union with God.”168 Such curricula, which combined secular and sacred subjects, were an innovation of Spanish Jewry, who expanded upon the traditional Judaic program adopted from Babylonia. In addition to Torah, Mishnah, and Talmud, the Spanish program of study included gram-

168 See Neuman, op. cit., note 166 above, pp. 64-96, esp. 71-2; Gudemann, op. cit., note 166 above, pp. 7-159.
mar, poetry, logic, rhetoric, arithmetic, geometry, astronomy, music, physical science, and the crown of all learning, metaphysics. These innovative and comprehensive Spanish curricula aroused the opposition of traditionalists, who concentrated on religious studies. In some cases the adoption of new curricula caused serious controversies; in Narboni’s native city of Narbonne, for instance, the innovation led to a rift between proponents and opponents of philosophy and in mutual excommunication. In Barcelona in 1305, Rabbi Solomon Ben Adret (Rashba; c. 1235-1310), the spiritual leader of Spanish Jewry, formally restricted the study of physics and metaphysics to those 25 years of age or older.¹⁶⁹

A curriculum similar to that embraced by Spanish Jewry was, according to the testimony of Ibn al-Khaldūn, adopted by the Muslims of Spain for the education of their children. This curriculum, unlike the restricted one current in most of the medieval Muslim world, combined religious teaching, such as that of the Qurʾān, with secular studies, such as language and arithmetic, in order to provide the children with the linguistic and intellectual tools necessary for a more sophisticated understanding of the Qurʾān.¹⁷⁰

**Philosophical issues**

Apart from the philosophical issues touched upon indirectly in the previous sections, direct references are scattered throughout Sefer Orath Hayyim. Discussing melancholy arising from black bile in the head, Narboni remarks that “a symptom of this disease is that one constantly studies one subject (ha-davar ha-echad)..., concentrates on deep (hidden) things, studies much philosophy, and secludes oneself for a long time for the service of God (i.e., prayer)...”¹⁷¹ The connection between philosophy, melancholy, and seclusion goes back to Aristotle, who thought that this was the disease of the “outstanding” or “eminent” among mankind, the great philosopher himself.¹⁷² The question of seclusion as a necessary prerequisite for man’s ultimate felicity was a central issue in the political philosophy of the Muslim philosophers Ibn Bājja (d. 1138)

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¹⁶⁹ See Encyclopaedia Judaica, vol. 6, cols. 405-407, art. “Education” (E. Bortniker); for other attempts to limit the study of philosophy and later Kabbalah to “mature” students see Moshe Idel, “On the history of the interdiction against the study of Kabbalah before the age of forty (Heb.),” AJSreview 5 (1980), pp. 1-20.


¹⁷¹ Fol. 12b.

and Ibn Tufayl (d. 1185), who stated that only the “solitary” can achieve this. Averroes, however, following Aristotle, argued that man must live in society, since he is a “political animal.” Following Averroes, Narboni remarks in his commentary on Ibn Ṭufayl’s Ḥayy ibn Yaqqān, that the solitary (ḥa-mitboded) is part of the society in the midst of which he lives (ha-mitboded hu ḥeleq medina). In Sefer Orah Hayyim he remarks that “when someone does not live a political life (mi she-eino medini), he is not endowed with justice or wickedness.” In other words he does not lead a life which can and should be evaluated in moral terms.

The connection between philosophy and insanity, first articulated by Aristotle, is the theme of the following (pseudepigraphic?) story about Maimonides, which Narboni cites to demonstrate the effects of excessive philosophical studies:

They said that the divine R. Moses, Peace to him, used to visit the prisoners of the government in Egypt, and saw a wonderful scholar detained in a room in the prison courtyard. R. Moses did not see any [indication of] hallucination or mental disturbance in him. He entered another room in which he saw another wonderful, divine, and erudite scholar. R. Moses asked him: why has this scholar who is in the other room, been arrested? He answered him: he pretends to be a prophet and I swear by my life, I did not send him—as if he was the sender [God]! ... This occurred to them because they engaged so much in their study of philosophy, that they contemplated (lit. looked) and became demented (heziṣu we-nifgecu).

This wonderful anecdote fits well into a medieval western context, where mysticism is understood as uniting with God. Here are cases of people who became “stuck” in that mode and can no longer differentiate themselves from the Divine. The concept of prophetic madness is an ancient one. Although Plato considers Apollo its patron, the notion of prophetic madness may well be older than the religion of Apollo. If the Greeks, as

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174 Fol. 75a; this statement is also made by Narboni in his commentary on Ibn Ṭufayl’s Ḥayy b. Yaqqān, see Rosenthal, op. cit., note 173 above, p. 231.

175 See note 172.

176 Fol. 13a. This expression is again used by Moshe Idel when he speaks about the correct moral education of children; he remarks that one should teach them the right way when they are young so that “they will not become demented when they look” (fol. 75a).

Dodds remarks, "were right in connecting mantis (prophet) with mainomai (to be mad)—and most philologists think they were—the association of prophecy with madness belongs to the Indo-European stock of ideas". 178 In Rabbinic literature this idea features in the well-known Talmudic dictum: "R. Johanan said: Since the Temple was destroyed, prophecy has been taken from prophets and given to fools and children." 179 The expression "looked and became demented" (heziuzu we-nifge'yu) refers to the famous tale about the mystical journey and ecstatic contemplation of Ben Azzai who cast a look and died, Ben Zoma who looked and became demented, Aher who mutilated the shoots, and Rabbi Akivah who departed unhurt. 180

One aspect of Narboni's philosophy of language is revealed in his remark that the Hebrew language "refers to the essence of phenomena" (moreh al-azmiyyut ha-nim'ziyyut). 181 Thus, he argues that the disease called al-batn (belly) in Arabic is called 'androginos' in our language (Hebrew). 182 He who coined the Hebrew language, in His wisdom coined this word, since its numerical value is equal to 'male and female' (zakhar u-neqevah). 183 Narboni's numerological interpretation of the term "androginos" is similar to, and possibly derived from the Kabbalist Abraham Abulafia, who, as Idel remarks, "makes use of foreign words... based on the assumption that within these words is preserved the originally Hebrew ideas." 184 Moreover, the notion that the Hebrew language "refers to the essence of phenomena" also features in Abulafia's works, where we read: "the Hebrew language is natural since it portrays the essential nature of the denoted." 185 The question of the origin of language and the essence of its nature was frequently discussed by Jewish medieval scholars. 186 As to its origin, there were essentially two different theories: (a) that language is a result of human convention, or

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180 TB Hagigah 14b, transl. Epstein.
181 Fol. 71b. Narboni expresses the same idea in his commentary on Ibn Tufayl's Hayy ibn Yaqzan; see Shalom Rosenberg, Logic and ontology in Jewish philosophy in the 14th century (Hebrew; PhD), Jerusalem 1973, p. 169.
182 "Androginos" is, of course, Greek for hermaphrodite.
183 Fol. 71b; the numerical value of the consonants of both terms is 390.
185 Idel, ibid., p. 16.
(b) that language is a result of Divine revelation or the revelation of the essences of phenomena. The first theory was generally adopted by Maimonides and the philosophers, and the second by the mystics, such as R. Joseph Gikatilla. On the question of Hebrew language Narboni’s position is akin to that of the Kabbalists.\textsuperscript{187}

\textit{Conclusion}

Although Narboni’s \textit{Sefer Orah Hayyim} is similar in structure to theoretical medical compendia like Ibn al-Jazzār’s \textit{Zād al-musāfir}, which comments on disease \textit{a capite ad calcem} (from head to toe), Narboni’s work differs in content, for it informs us about contemporary events and directly reflects the contemporaneous socio-medical context. Thus, it informs us about the Black Death, the author’s escape from the plague, and the confinement of lepers. The extensive discussion of poisons reflects an era in which poisons were commonly used and, consequently, feared in every stratum of society. The story about Maimonides’ activity as a physician for government prisoners is, if authentic, a unique biographical report. The autopsy described by Narboni is an early example of dissection performed to establish the cause of death, rather than to gain medical knowledge per se. It is, moreover, the earliest description of an autopsy in medieval Hebrew medical literature.

Our survey of \textit{Sefer Orah Hayyim} reveals a physician who is not content with existing therapy, but endeavors to test and apply new remedies, and who casts a critical eye upon the activities of his colleagues, especially the “so-called surgeons”. However, the section on magic and superstition shows that despite his rationalist bent, Narboni the philosopher and physician believed, with many of his contemporaries, in the reality and efficacy of witchcraft.

The book contains some interesting material that reflects Narboni’s political thought, linguistic philosophy, and astrology. His discussions of man as a “homo politicus” (\textit{medini}), supplement and elucidate his expositions on the same subject in his commentary on \textit{hayy ibn Yaqzān}. Similarly, his linguistic theory, that the Hebrew language refers to the “essence of phenomena,” complements his treatment of language in other works. Narboni’s statements on astrology show how deeply convinced he was of its validity, despite his commitment to the doctrine of free will. His theory of education and his comprehensive curriculum for

\textsuperscript{187} For Moshe Narboni’s mystical tendency cf. Rosenthal, op. cit., note 173 above, p. 234: “His rationalism or, as we would prefer to say, intellectualism is tempered with his strong leanings towards mysticism on a purely spiritual, intellectual level.”
religious and secular studies, which do not figure in his other works, are akin to those developed by other Spanish thinkers.

Finally, Narboni’s monograph testifies to the persistent influence and popularity of Arabic medical works in 14th century Christian Spain. Although historians of medicine have noted the lasting influence of Ibn Sinâ’s *K. al-Qânûn*, our study of *Sefer Orah Hayyim* demonstrates the enduring popularity of other works, notably Ibn al-Jazzâr’s *Zâd al-musâfîr*. Our limited linguistic research indicates that he actually knew Arabic and consulted Arabic medical works for the composition of *S. Orah Hayyim*. 