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Cover

Mašhad, Kitābhāna-i Āsitān-i Quds-i Raḡawī 300, f. 1v
Paris, Bibliothèque nationale de France, *grec* 1853, f. 186v

Hippocratic Quotations in Kitāb al-Ḥāwī fi l-Ṭibb IX: “On the Diseases of the Womb”

Carmela Baffioni

Abstract

This article is a first approach to the sources of Book IX of *Kitāb al-Ḥāwī fi l-Ṭibb* by the great physician and philosopher Abū Bakr Muḥammad ibn Zakariyyā al-Rāzī (d. 925 A.D.). It begins with a general survey of the passages in which the name and/or the works of Hippocrates appear; this includes the passages in which works of uncertain and possibly Hippocratic attribution are quoted. Indications of parallel passages in the original Greek works or their Arabic translations are provided. Some texts are studied in detail to identify problems linked to the transmission and reception of the Greek sources into Arabic.

Introduction

I have been working for some years on the sources of Book IX of Abū Bakr Muḥammad ibn Zakariyyā al-Rāzī's *Kitāb al-Ḥāwī fi l-Ṭibb*.¹ This, his best-known work, is a personal medical journal and notebook that was not meant for publication.² Its sources include Arabic, Greek, Byzantine, Syriac, Indian and Persian texts. The numerous quotations are mingled with the author's own views and clinical observations under the heading *lī* (by me, in my own opinion), but it is not certain whether the siglum *lī* refers to Rāzī's personal observations or to statements by those who prepared the printed version of the work.³

The question of the sources is one of the most important issues involved in any investigation of the *Kitāb al-Ḥāwī*. In this paper I deal with the Hippocratic contexts of Book IX, including those

¹ For my research I use the online Beirut version of 2000 edited by Dār al-kutub al-‘ilmiyya, which bears in the margins the Hyderabad pagination. I have also consulted Abū Bakr Muḥammad b. Zakariyyā ar-Rāzī (d. 313 A.H. / 925 A.D.), *Kitāb ul-Ḥāwī fi l-Ṭibb (Continens of Rhazes) [...] (An Encyclopaedia of Medicine)*, Edited by the Bureau from the unique Escorial and other manuscripts Under the auspices of the Ministry of Education Government of India, Published by The Dāiratu'l-Ma'ārif-il-Osmānia (Osmania Oriental Publications Bureau), Hyderabad-Deccan (India) 1374H. / 1955 (the volume containing Book IX is dated 1960; the last one is dated 1970).

² A short presentation of the project and contents of that I henceforth refer to as the *Gynaecological Book* has been provided in C. Baffioni, “Synopsis of *Kitāb al-Ḥāwī fi l-Ṭibb*, III volume, part IX ‘On the diseases of the Womb’ and its Sources”, a paper presented at the 29th UEAI Congress (Münster, 10-14 September 2018), in print in the Proceedings of the Congress. The second part, devoted to the names quoted in the *Gynaecological Book*, is provided in Ead., “*Kitāb al-Ḥāwī fi l-Ṭibb*, Parte IX ‘Sulle malattie dell’utero e del feto’. Profilo generale ed esame degli autori citati”, in *La conoscenza scientifica nell’Alto Medioevo* (Spoleto, 25 aprile - 1 maggio 2019), 2 voll., Fondazione CISAM, Spoleto 2020 (Atti delle Settimane di Studio della Fondazione Centro italiano di Studi sull’Alto Medioevo, LXVII), T. I, pp. 837-64. The third part, devoted to the works quoted in the *Gynaecological Book*, is provided in Ead., “*Kitāb al-Ḥāwī fi l-Ṭibb IX On the Diseases of the Womb* by Abū Bakr al-Rāzī and its Sources”, paper presented at the “1st International Prof. Dr. Fuat Sezgin Symposium for the History of Science in Islam” (Istanbul, 13-15 June 2019), in print in the *Proceedings* of the Symposium.

³ These were probably Rāzī's students who worked on the materials that Abū l-Faḍl Ibn al-‘Amīd, the *vizīr* of the buyid *amīr* Rukn al-Dawla, bought from Rāzī's sister. In this study, however, I refer to Rāzī's authorship.

in which the name “Abqrāt” (Hippocrates, 460ca.-370ca.) explicitly occurs. I have translated all of them, and after a first survey of the Greek originals and their extant Arabic versions I have been able to identify some of Rāzī’s sources.

The name “Abqrāt” occurs in the *Gynaecological Book* 27 times, of which 15 are associated with quotations from Hippocrates; their titles are indicated in the texts. Twelve⁴ other passages attribute sayings to Hippocrates without mention of the works from which they are taken. There are also 20 anonymous references to works by Hippocrates and 16 anonymous references to works that might be ascribed to Hippocrates, Galen or other authors.

In view of the limits of this article and the fact that my work is still in progress, I consider only a few cases in detail.

*Explicit References to and Quotations from Hippocrates in Ḥāwī IX*⁵

The Excision of Embryos That Are Dead in the Womb (Ṭašrīḥ al-aḡinna allaḏīna yamūtūna fi l-raḥim)

There is no extant Arabic version of the original fragment entitled Περὶ ἐγκατατομῆς ἐμβρύου [Littré VIII, 512-518].⁶

- Text n. 17 (Ḥāwī IX, pp. 1413.27-1414.5 [= pp. 27.15-28.2⁸]).

This passage summarizes part of Chapter 5 of the Greek original.⁹

- Text n. 21 (pp. 1484.22-1485.11 [= pp. 147.11-148.12]).

This quotation refers to the same work,¹⁰ but the title is given in an abbreviated form (*Ṭašrīḥ al-aḡinna*) before the reference to its author and is completed after it. This fairly long passage bears many resemblances to the rest of the Greek text.

On the Pains of Virgins (Fi Awḡā al-‘adārā)

The Arabic title corresponds to the Περὶ παρθενίων [Littré VIII, 466-470]. Only fragments of the Greek work have come down to us: these deal with the disturbances that occur when a young girl has no menses.

- Text n. 3 (Ḥāwī IX, p. 1437.17-18 [= p. 67.5-6]).¹¹

⁴ The mention of the name “Abqrāt” in Text n. 16 (see *infra*, p. 230) at p. 1475.4 completes the 27 texts identified here; it is the 17th mention.

⁵ My research is intended to complement Th. Withington’s list of Greek sources in *Firdaws al-ḥikma* by ‘Alī ibn Rabban al-Ṭabarī. Cf. A. Siggel, “Gynäkologie, Embryologie und Frauenhygiene aus dem ‘Paradies der Weisheit’ über die Medizin des al-Ṭabarī”, *Quellen und Studien zur Geschichte der Naturwissenschaften und der Medizin* 8 (1942), pp. 216-72, Appendix 2.

⁶ Its content is the same as that of the treatise *On the Illnesses of Women*, but a comparison, Littré remarks, can produce interesting notes on the history of the text. Hippocrate, *Œuvres complètes*, éd. É. Littré, VIII, Hakkert, Amsterdam 1982 (réimpr. éd. Paris, 1844), p. 510.

⁷ The numbering follows from the order in which the passages considered appear in Ḥāwī IX.

⁸ I indicate the page(s) and line(s) of the online edition, followed by the corresponding page(s) and line(s) of the Hyderabad edition (quoted above, n. 1). Manfred Ullmann refers to this passage [Ḥāwī IX, 27.16] in *Die Medizin im Islam*, Brill, Leiden – Köln 1970, p. 31. On the contrary, the closest title mentioned by Fuat Sezgin is *Kitāb fi tašrīḥ ar-raḥim* by Galen [= Περὶ μήτρας ἀνατομῆς, Kühn II, 887-908]; cf. *Geschichte des arabischen Schrifttums*, Band III: *Medizin-Pharmazie, Zoologie-Tierbeilkunde. Bis ca. 430 H* [henceforth: *GAS* III], Brill, Leiden 1996, p. 101, with no references to Ḥāwī IX.

⁹ Hippocrate, *Œuvres complètes*, VIII (above, n. 6), pp. 517-19.

¹⁰ As is also confirmed by Ullmann’s reference to Ḥāwī IX, 147.12 (*Medizin im Islam* [above, n. 8], p. 31).

¹¹ Sezgin and Ullmann refer to the contexts of Ḥāwī IX: cf. *GAS* III (above, n. 8), p. 45 and *Medizin im Islam* (above, n. 8), p. 32.

Suffocation of the womb is not explicitly mentioned in the Greek original, and neither is phlebotomy; this quotation nonetheless echoes in some ways the conclusion of the original.¹²

A more faithful though abridged quotation from this work occurs on p. 1439.1-3 [= p. 69.15-17], but neither its author nor phlebotomy are mentioned:¹³

When a woman reaches the term of her monthly period and is a virgin, the blood tends towards the womb. [If] it does not find a passage, it goes back and rises to the diaphragm and the heart. From that, it comes like a madness. In that case, bleed her and give her in marriage. If she becomes pregnant, she recovers.¹⁴

The Book on the Embryo (Kitāb al-Ġanīn, Kitāb al-Aġinna)

There are four references to the title *Kitāb al-Ġanīn* explicitly ascribed to Hippocrates, to which a reference to *Kitāb al-Aġinna* must be added.¹⁵ The work corresponds to the Περὶ γονῆς [Littré VII, 470-484], which in the Greek original is merged with the Περὶ φύσιος παιδίου [Littré VII, 486-542].

Arabic versions of the Περὶ γονῆς and the Περὶ φύσιος παιδίου are available.¹⁶ My comparison confirms the editors' judgement, that "The text [...] shows a mixture of translation, paraphrase and comment".¹⁷ With reference to *Hāwī* IX, they note: "Not all al-Rāzī's quotations are so readily

¹² I report here Littré's translation: "Elles sont délivrées de cette maladie, quand rien n'empêche l'éruption du sang. Je recommande aux jeunes filles, éprouvant des accidents pareils, de se marier le plus tôt possible; en effet, si elles deviennent enceintes, elles guérissent; dans le cas contraire, à l'époque même de la puberté, où peu après, elles seront prises de cette affection, sinon d'une autre. Parmi les femmes mariées, les stériles y sont plus exposées". Hippocrate, *Œuvres complètes*, VIII (above, n. 6), pp. 469-71. Cf. also [Buqrāt], *Kitāb Buqrāt fi'l-Akhlāt and Kitāb al-Ghidhā li l-Buqrāt (Hippocrates, On Humours and On Nutriment)*, ed. and tr. with intr., notes and glossary by J.N. Mattock, Heffer, Cambridge 1971 (Arabic Technical and Scientific Texts, 6), p. 24.

¹³ In all comparisons the parts common to both versions are underlined, parts that differ from each other are shown with a broken line and any parts missing in one version is shown with a dotted line.

¹⁴ "Les jeunes filles, quand vient l'époque du mariage, ne se marient pas, [...] à la première éruption des règles, [...] le sang se porte à la matrice, comme pour s'écouler au dehors. Ainsi donc, quand l'orifice de l'issue n'est pas ouvert, [...] alors le sang, n'ayant point de sortie, s'élançe, vu la quantité, sur le cœur et le diaphragme. Ces parties étant remplies, le cœur devient torpide; à la torpeur succède l'engourdissement, et à l'engourdissement le délire. [...] C'est ainsi que, quand on est resté longtemps assis, le sang, repoussé des hanches et des cuisses aux jambes et aux pieds, cause l'engourdissement; [...] Cette espèce d'engourdissement n'est pas pénible, car le retour est très prompt à cause de la rectitude des veines [...] Mais, quand il s'agit du cœur et des phrènes (diaphragme), le retour est lent; car les veines sont obliques, et l'endroit est dangereux et disposé au délire et au transport. [...] La malade dit des choses terribles. Les visions lui ordonnent de sauter, de se jeter dans les puits, de s'étrangler [...] Elles sont délivrées de cette maladie [...] (as to the final part of the text, see above n. 12)". Hippocrates, *Œuvres complètes*, VIII (above, n. 6), pp. 467-69 passim. On the suffocation of the womb cf. also *ibid.*, pp. 505-7.

¹⁵ Both titles *Kitāb al-Aġinna* and *Kitāb al-Ġanīn* are quoted in Sezgin, *GAS* III (above, n. 8), p. 38, with references to *Hāwī* IX, 68, 123, 129-31, 138-9, 145, 147-8; cf. also p. 25 and Ullmann, *Medizin im Islam* (above, n. 8), p. 27, with references to *Hāwī* IX, 68.3, 110.14, 123.7, 129.16, 160.13. My quotes correspond to all the references provided by Ullmann. As for Sezgin's three last references, see *infra*, the Conclusions.

¹⁶ [Buqrāt], *Kitāb al-Aġinna li-Buqrāt. Hippocrates on Embryos (On the Sperm & On the Nature of the Child)*, ed. and transl. with intr., comm. and glossary by M.C. Lyons – J.N. Mattock, Cambridge Middle East Centre, Cambridge 1978 (Arabic Technical and Scientific Texts, 7). On the various titles attributed to the work see *ibid.*, Introduction, p. ii.

¹⁷ *Ibidem*.

identifiable, but undeniably he used our text as a source”.¹⁸ The editors also refer to Ṭabarī’s quotations from Hippocrates, remarking that Rāzī’s references “to our text, which he calls both *Kitāb al-ajinna* and *Kitāb al-janīn*,”¹⁹ are closer than those of al-Ṭabarī”.²⁰

- Text n. 4 (*Hāwī* IX, p. 1438.4 [= p. 68.3]). Cf. the statement at p. 1439.1-3 above [p. 229].
- Text n. 12 (p. 1463.17-18 [= p. 110.14-16]).

A similar text is found in *Kitāb al-Ağinna*.²¹

- Text n. 13 (p. 1470.21-22 [= p. 123.7-9]).
- Text n. 16 (pp. 1474.15-1475.9 [= pp. 129.16-131.2]).

I have divided this passage into 6 units. The second is a very abbreviated version of the well-known Hippocratic passage about the girl who provoked her own miscarriage by jumping up and down. It occurs three times in the *Gynaecological Book* (see *infra*, pp. 230-31). The third unit about lochial discharge can be compared with Text n. 13. Units 5-6, concerning breech or other abnormal positions of foetuses, which cause a difficult delivery, recall *Kitāb al-Ağinna*,²² as does unit 8 on twins.²³

- Text n. 25 (p. 1492.4-6 [= p. 160.13-15]). Cf. Text n. 16 [unit 6; see above].

*The Book on Sperm (Kitāb al-Maniyy)*²⁴

In *Hāwī* IX there are three quotations from this work explicitly ascribed to Hippocrates:

- Text n. 6 (*Hāwī* IX, p. 1448.3-4 [= p. 83.14-15]).

This statement partially echoes two passages of *Kitāb al-Ağinna*, but these refer to the foetus and not to sperm.²⁵

- Text n. 15 (p. 1473.9-10 [= p. 128.2-4]).
- Text n. 22 (p. 1487.8-9 [= p. 152.2-3]).

Texts nn. 15 and 22 are related to Text n. 16, lines 17-19 [unit 2; see above]. To indicate the girl’s conception, Text n. 16 has *ḥabilat imrā’a*, Text n. 15 *imrā’a ‘aliqat* and Text n. 22 *istamalāt al-ğāriya al-māniyya*. “To order” is always *amara*; “to jump up and down” is *taṭfir taṭfran šadīdan sarī an mutawāliyan* in Text n. 16 followed by *‘uṣ’uṣ* for “buttock” and then by *waṭabat*; in Text 15 we have *taṭbut waṭbāt* and then *taṭfir taṭfrāt* for “jumping up and down”, whereas “buttock” is *alya*; in Text 22 there are *fā-ṭafara sab’ taṭfrāt* and *alya* respectively; the

¹⁸ *Ibid.*, Introduction, p. III. At p. IX, note 23 references are to IX 123, 129, 160 only.

¹⁹ *Ibid.*, p. ix, note 22 refers to IX 110. The underlining is in the text.

²⁰ *Ibid.*, Introduction, p. III.

²¹ *Ibid.*, p. 5 (par. 39). See also Littré’s French version of the Greek original in Hippocrate, *Œuvres complètes*, VII, *De la génération*, Hakkert, Amsterdam 1979, p. 477. A consequence of this assertion is expressed in [*Buqrāt*], *Kitāb Buqrāt fi ḥabl’ alā ḥabl* (*Hippocrates: On Superfoetation*), ed. by J.N. Mattock; *Kitāb Buqrāt al-mā’ ruf’ bi-Qātīrriūn* (*Hippocrates: In the Surgery*), ed. by M.C. Lyons, Heffer, Cambridge 1968 (Arabic Technical and Scientific Texts, 3), pp. 10-11: “When the womb has previously expelled the sperm, and it has left the vulva, the woman should go to her husband’s bed again”; cf. Hippocrate, *Œuvres complètes*, VIII (above, n. 6), par. 26, p. 491.

²² *Kitāb al-Ağinna li-Buqrāt* (above, n. 16), pp. 26 (Arabic text, p. 80.1-2) and 29 (Arabic text, p. 83.14-18).

²³ *Ibid.*, pp. 29-30 (Arabic text, pp. 84.13 and 85.7-8). With regard to this last text, the original seems quite different. This is Littré’s French translation: “Les jumeaux naissent d’un seul coït [...] ont chacun un sinus et un chorion [...] il y a de la semence plus faible et de la semence plus forte, et la semence ne va pas d’un seul coup, mais elle est émise à deux et trois reprises”. Hippocrate, *Œuvres complètes*, VII (above, n. 21), p. 541. Cf. also this passage from the *Book on Superfoetation*: “Une femme enceinte de jumeaux les met au monde en même temps, comme elle les a conçus; les deux enfants sont dans un seul chorion” (Littré’s transl. in Hippocrate, *Œuvres complètes*, VIII (above, n. 6), p. 485).

²⁴ The Arabic word is transliterated both as *maniyy* and as *minā*.

²⁵ *Kitāb al-Ağinna li-Buqrāt* (above, n. 16), pp. 20 (Arabic text at p. 69.12-13) and 25 (Arabic text at p. 77.18-19).

fall of the sperm (always *al-maniyy*) is indicated by the verb *saqaṭa* in Texts 16 and 15, and by the verb *haraḡa* in Text 22.

Comparisons would be possible with the Arabic version of the Greek original. *Kitāb al-Aḡinna* provides two tales concerning the case.²⁶ Conception by the girl is not mentioned in *Kitāb al-Aḡinna* according to the original. As to the rest of the text, in the first version²⁷ of *Kitāb al-Aḡinna* we read *taṭbut waṭban qawiyyan ṣadīdan sarī an* for “jumping up and down” and then *waṭabat*, ‘uṣ’uṣ for “coccyx”, *waqā’a* for the fall of the sperm.

In the second version²⁸ we read *taṭbut* [...] *waṭban ṣadīdan sab’ marrāt* for “jumping up and down”, *waqā’a al-zar’ alā l-ard* for the fall of sperm; and *zar’* is used instead of the usual *maniyy*.

The original had a long description of the early foetus, but Rāzī simply compares it to an egg in its shell in Text n. 15 above. Littré’s translation of the original²⁹ and the English version of the corresponding Arabic text are markedly different from each other.³⁰

In conclusion, the quotations ascribed in *Ḥawī IX* to *Kitāb al-Maniyy* usually belong to *Kitāb al-Aḡinna*.

But the *Gynaecological Book* gives three more anonymous quotations from a *Kitāb al-Maniyy*:

- pp. 1448.27-1449.2 [= p. 85.3-5]. Cf. Text n. 12 above.
- p. 1449.3-7 [= p. 85.6-11].
- p. 1458.25-27 [= p. 102.7-9].

There is as we know another work of Galen entitled *Kitāb al-Maniyy* [Περὶ σπέρματος, Kühn IV, 512-651].³¹ The quotation at p. 1445.15 must refer to this work, since Galen is quoted at line 14. It is also possible that the reference to a “seventh” [Book?] at p. 1447.27 refers to this work, because the last title mentioned is *Kitāb al-Maniyy* on p. 1445.15.³²

The text at p. 1458.25-27 mentioned above refers to “Book I” of the work, so its attribution to Galen is also highly probable.

But a closer examination of these three anonymous quotations shows that they are all from Galen’s *Book on Sperm*. The first is from Book I, 1-2: conception (συλλαμβάνειν) occurs when the womb retains the semen. Cf. this passage in particular:

Men perceive [...] the uterus drawing in the pudendum like a physician’s suction cup.³³

²⁶ *Ibid.*, p. 10 (references to the Arabic texts at nn. 27-28). Cf. Littré’s version: “Chez une femme de ma connaissance était une baladine fort estimée, qui avait commerce avec les hommes, et qui ne devait pas devenir grosse, afin de ne pas perdre son prix. Cette baladine avait entendu ce que les femmes disent entre elles, à savoir que, quand une femme conçoit, la semence ne sort pas, mais demeure dedans. Ayant entendu ces dires, elle les comprit et retint. Un jour elle s’aperçut que la semence ne sortait pas; elle le dit à sa maîtresse, et le bruit en vint jusqu’à moi. Ainsi informé, je lui ordonnai de sauter de manière que les talons touchassent les fesses; elle avait déjà sauté sept fois lorsque la semence tomba à terre en faisant du bruit. A cette vue, la femme fut saisie d’étonnement”. *Ceuvres complètes*, VII (above, n. 21), p. 491.

²⁷ Arabic text in *Kitāb al-Ajinna li-Buqrāt* (above, n. 16), p. 49.3-14.

²⁸ Arabic text *ibid.*, pp. 49.14-50.5.

²⁹ Hippocrate, *Ceuvres complètes*, VII (above, n. 21), p. 491.

³⁰ *Kitāb al-Ajinna li-Buqrāt* (above, n. 16), p. 10; Arabic text *ibid.*, pp. 50.6-51.3.

³¹ For this attribution see also Sezgin, *GAS* III (above, n. 8), p. 113, with references to *Ḥawī IX*, 85, 102, 128, 152 (on which see *infra*, the Conclusions) and Ullmann, *Medizin im Islam* (above, n. 8), p. 41, with reference to *Ḥawī IX*, 152.2.

³² The quotation titled *al-Sābi’a* follows a long passage on the “Causes of the impossibility of conceiving”, which opens with the expression “Galen said [...]” and is completed by four more *qāla*. It deals with abortion caused by violent dysentery, and is followed by a paragraph taken from the *Book on Signs*. This work will hence be identified only after an examination of Galen’s text.

³³ δίκην σκύλας ἰατρικῆς εἶσω τὸ αἰδοῖον ἐπισπωμένων αὐτῶν [Kühn IV, 516.1; De Lacy’s translation, pp. 67-9 in Galen, *On*

The second text assembles several passages from Galen:

(a) [...] But when (the testicles) are severely chilled they make (men) sterile [...] Why, furthermore, (does the animal become sterile) when they are crushed? [...] And when they are indurated?³⁴

(b) As an indication of the influence of heat on the embryo carried in the womb, Galen remarks:

And this is why males are observed to be carried in the right (half of the) uterus, and rarely has a female ever been seen in this half, just as a male has rarely been seen in the left. So also with the testicles: if the right testicle is better nourished and the first to be aerated in puberty, the animal produces male offspring; if it is less well nourished and begins to develop later (than the left testicle), the animal produces female offspring.³⁵

(c) And later:

[...] when the temperament of the fetus is hotter and drier a male animal is produced, and when it is colder and wetter, a female.³⁶

The third quotation appears to be a rough summary of Galen in the contexts of the membrane that envelops the semen after conception: the following lines appear to be the most similar to the Arabic text:

[...] the semen, remaining continuous with itself at the time when it is being pulled by the uterus, is, of course, stretched out and flattened, since all the parts of the uterus alike reach out for it; and because it is viscous and thick [...] it easily forms a membrane [...] it is often torn apart when it is excessively moist and weak and is pulled by many parts simultaneously in opposite directions. If this happens to it, it flows out and falls away and is destroyed, its continuity dissolved; but if it resists stretching, [...] – semen of that sort must be viscous and thick and abundant – immediately all its outer surface, that which touches the uterus, turns to membrane [...].³⁷

*The Book on Superfetation*³⁸ (*Kitāb Ḥabal 'alā ḥabal*)

The *Gynaecological Book* contains one quotation explicitly ascribed to Hippocrates. The Arabic title corresponds to the Περὶ ἐπικυήσεως [Littre VIII, 476-508], which consists of parts of the treatises *On the Illnesses of Women* and *On Barren Women* (Γυναικείων and Περὶ Ἀφώρων); the part on superfetation, which is limited to the first paragraph, is original.³⁹ Its Arabic version is extant⁴⁰ but considered by the editor J.N. Mattock to be obscure and unfaithful to its original. Mattock,

Semen, ed., transl. and commentary by Ph. De Lacy, Akademie Verlag, Berlin 1992 (Corpus Medicorum Graecorum, 5, 3, 1)].

³⁴ Kühn IV, 564.12-15; De Lacy's translation, p. 117 in Galen, *On Semen* (above, n. 33).

³⁵ Kühn IV, 633.8-14; De Lacy's translation, p. 187 in Galen, *On Semen* (above, n. 33).

³⁶ Kühn IV, 641.13-15; De Lacy's translation, p. 197 in Galen, *On Semen* (above, n. 33).

³⁷ Kühn IV, 526.13-527.3; De Lacy's translation, p. 79 in Galen, *On Semen* (above, n. 33).

³⁸ Superfetation is when a second, new pregnancy occurs during an initial pregnancy, another ovum being fertilized by sperm and implanted in the womb days or weeks later than the first one.

³⁹ Hippocrate, *Œuvres complètes*, VIII (above, n. 6), p. 473. See also M. Ullmann, "Die arabische Überlieferung der hippokratischen Schrift *De Superfetatione*", *Sudhoffs Archiv* 58 (1974), p. 254-75 [repr. in Id., *Aufsätze zur arabischen Rezeption der griechischen Medizin und Naturwissenschaft*, ed. R. Arnzen, De Gruyter, Berlin 2016 (Scientia Graeco-Arabica, 15)], pp. 3-22, at p. 4.

⁴⁰ [*Buqrāt*], *Kitāb Buqrāt fī ḥabl' alā ḥabl* (above, n. 21).

however, judged it interesting for the study of the development of Arabic prose writing. According to Mattock, the unknown author was probably earlier, and certainly of less ability than others such as Ḥunayn, Ishāq and Ḥubayš; as for Rāzī, he “certainly used this version”. He refers to *Ḥawī* IX, 106-107, the pages corresponding to Text n. 11 and the passage that follows it.⁴¹

- Text n. 11 (p. 1461.2-5 [= p. 106.4-7]).⁴²

This text deserves special attention. It can be divided into two parts: the first is an incomplete and obscure abridgement of part of the first chapter of the Arabic version, which I give in the right-hand column in Mattock’s translation:⁴³

<p>Superfetation occurs to a woman the mouth of whose womb is indeed ruined after conception [<i>ḥabal</i>] and sheds a bit of blood in her pregnancy [<i>ḥabal</i>]. When that occurs, if it is the <u>first [conception]</u> it does not appear rotten and comes out from the womb [...].</p> <p>يقع حبل على حبل بالمرأة التي يفسد فم رحمها نعماً بعد الحبل وتزيق دما قليلاً في حبلها وإذا وقع ذلك فإنه إن كان الأول لم يتصور عفن وخرج من الرحم [...].</p>	<p>[...] Superfoetation occurs only in women the mouths of whose wombs have not closed properly after their <u>first</u> conception, and who menstruate little or not at all. The <u>result of superfoetation causes inflammation</u> if it has not yet begun to take shape <u>and is still simply flesh, for it swells</u> and putrefies until it comes out of the womb.</p> <p>وأما يعرض حبل على حبل للنساء اللواتي لم تستد أفواه أرحامهن نعماً بعد الحبل الأول ويظمتن قليلاً أو لا يظمتن البتة فأما الحبل على حبل فإنه يولد احترافاً إن كان لم يتصور بعد وأما هو لحم فإنه ينتفخ ويعفن حتى يخرج من الرحم .</p>
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In this section, the verb “to occur” is rendered with *waqa’a* by Rāzī and by *’arada* in *Kitāb Ḥabal’ alā ḥabal*. For “woman” we find *imrā’a* and *nisā’* respectively; and *Kitāb Ḥabal’ alā ḥabal* gives the whole phrase in the plural.⁴⁴ The text is also summarized by Rāzī. But the most interesting details in Rāzī are the incongruous form *yafsud* instead of *tastadd*, and the formulation of the concept of the loss of blood. In the first case, Rāzī’s text should be emended: the Arabic ductus of *tastadd* may have led to an error in the transmission of the text. The second difference is best explained by the fact that Rāzī amends the original, linking superfetation not to minimal or no menses but to bleeding during pregnancy. It is likely that Rāzī also added the word *al-awwal* to indicate the first conception mentioned in the original version he was using, which was evidently corrupt. In fact the verb *’afana* immediately follows the words *lam yataṣawwar*, unlike the text of *Kitāb Ḥabal’ alā ḥabal* that we read today. The final words are very similar in both texts.

The second part corresponds to the final lines of the passage before the preceding quotation from the Arabic version:⁴⁵

⁴¹ *Ibid.*, Introduction, pp. I-III.

⁴² Sezgin, *GAS* III (above, n. 8), p. 42 mentions this title with references to *Ḥawī* IX, 91 and 106; Ullmann, *Medizin im Islam* (above, n. 8), p. 31, refers to *Ḥawī* IX, 106.4 and 171.15.

⁴³ The whole Arabic text corresponds to [*Buqrāt*], *Kitāb Buqrāt fi ḥabl’ alā ḥabl* (above, n. 21), p. 1.3-13. See also Ullmann, “Die arabische Überlieferung” (above, n. 39), pp. 8-9.

⁴⁴ So in the very different Greek original; see Hippocrate, *Œuvres complètes*, VIII (above, n. 6), pp. 476-7. This is Littré’s translation: “La superfétation arrive chez les femmes dont l’orifice utérin ne s’est pas fermé complètement après la première conception, ou s’est fermé sans que les signes aient paru. Les produits de la superfétation, si, n’ayant pas encore les membres distincts ils ne sont qu’une chair, ne se gonflent pas, mais se putréfient jusqu’à ce qu’ils sortent”.

⁴⁵ إذا حبلت امرأة حبلاً على حبل فإن كان الجنين الأول في وسط الرحم خرج الجنين الثاني الى خارج لأن الولد يدفعه وان كان الجنين الأول في احدى جانبي الرحم حبلت حبلاً آخر لم يعيش لأن الرحم ترطب وتسترحى لأجل الحبل الأول الذي هو حيّ [...] . (“Hippocrates said: If, when a woman conceives by superfoetation, the first foetus is in the centre of the womb, the second *foetus* comes out, being expelled by the child. If, on the other hand, the first *foetus* is at either side of the womb, the woman conceives a second time, but the result of this conception does not survive, since the womb is moist and relaxed because of the result of the first conception, which is alive”). The text continues with the lines I quote corresponding to the second part of Rāzī’s quotation.

[...] and gives rise in her to fever, and <u>awaḳens pains</u> ⁴⁶ and evil illnesses until one of them is aborted.	If the second foetus is not immediately aborted, it gives rise to pains, an evil-smelling discharge, fever, and swellings on the face, the knees and the outer parts of the feet. The woman can take no nourishment until the second foetus is aborted. ⁴⁷
وتهبج بها حمى ويتهبج الوجه وأمراض رديئة إلى أن تسقط أحدهما .	وان لم يسقط الحبل الثانى من ساعته هبج أوجاعا وبراقا منتنا وحمى وانتفاخ الوجه والركبتين وطاهر القدمين ولا تقبل الغذاء حتى يسقط الجنين الثانى .

⁴⁶⁴⁷This section also shows that Rāzī must have been working on a corrupt copy: the introductory words are missing, and the verb *hāḡa* is common to both texts but Rāzī mentions fever first. Then we have the meaningless words *yatabhabbaḡa al-waḡh*. *Yatabhabbaḡa* is an obvious misreading of the original *intifāh*, which the copyist may have wished to transform into *intafaha* for grammatical reasons. Another and perhaps better possibility might be to emend *al-waḡh* to *al-waḡḡ*: in this case the words *amrād radī'a* might summarize all the disturbances listed in *Kitāb Ḥabal 'alā ḥabal*. Finally, Rāzī gives a different formulation of the last words of his source.

Rāzī's text continues with a long paragraph entitled "Signs of the death of the *fœtus* in the belly" (pp. 1461.6-27); it corresponds to paragraphs 10-11, 15-19, 22-23 of the Greek original.⁴⁸ I have divided this passage into 22 units corresponding to the chapters of the English version, which can be compared with it. In one case (unit 10, lines 6-8) the almost exact similarity of the last lines suggests that Rāzī may have actually seen the translation. But other elements (11, lines 8-9; 16, lines 11-13) differ from each other, and yet others (14, lines 9-10; 15, lines 10-11; 16, lines 13-14; 17-18, lines 14-15) are summarized in Rāzī, but the Arabic wording is very similar in the parts common to both. Differences in the texts might be a result of a misunderstanding of diacritical marks, for example in unit 16 where in referring to the pregnant woman's lips Rāzī gives "red" (حمراء) and the Arabic version of the original has "green" (خضراوين), more similar to the Greek *πελιδνά* in paragraph 17 (Littré 486.1; transl.: "livides"). In unit 17, Rāzī has *akṭarat min al-tīn wa l-fahm vs. istahat akl al-tīn wa l-fahm fa-akalat*. In this case, *akṭarat* might be a summarized miswriting for *akalat*. In unit 21, lines 15-16, Rāzī states the opposite of his source, but the meaning is consistent with the model. In unit 22, lines 16-17, Rāzī uses the verb *faṣada* instead of *qaṭa'a al-'irq*. The part that follows (lines 17-27) is not comparable with *Kitāb Ḥabal 'alā ḥabal*, at least in its extant form, or it might have been drawn from another work.

Another quotation from *Kitāb Ḥabal 'alā ḥabal*, with no mention of its author, is found in *Hāwī IX*:

- p. 1499.1-2 [= p. 171.15-16]:

From the *Book on Superfoetation*: Menses are retained from excessive hot and dryness in the body.

So far, I have not found parallel passages neither in the Greek original, nor in its Arabic version.

The *Gynaecological Book* provides another quotation from a work with a similar title, *Kitāb al-Ḥabal*:

- Text n. 8 (*Hāwī IX*, p. 1452.22-23 [= p. 91.12-13]):

From the *Book on Pregnancy* by Hippocrates: "When the delivery of a male is desired, treat the man and the woman with water that has been warmed up for a while".⁴⁹

⁴⁶ This term is perhaps to be emended. See *infra*.

⁴⁷ This is Littré's translation: "Si le produit de la superfétation ne sort pas aussitôt, il cause de la douleur, un flux fétide et de la fièvre; le visage, les jambes, les pieds enflent, ainsi que le ventre; anorexie jusqu'à ce qu'il soit expulsé". Hippocrate, *Cœuvres complètes*, VIII (above, n. 6), pp. 476-7.

⁴⁸ Hippocrate, *Cœuvres complètes*, VIII (above, n. 6), pp. 482-9.

⁴⁹ Ullmann refers the quotation to the *De Victu* (Littré VI 500, p. 7). See Ullmann, "Die arabische Überlieferung"

The Oath ('Ahd)

In *Ḥawī* IX there are two passages said to have been drawn from Hippocrates's *Oath* [Ὁρκος, Littré IV, 628-632]. They deal with the pains occurring in the case of an abortion, and hence it does not seem likely that the source indicated is the correct one because Hippocrates's *Oath* is clearly against abortion: "[...] Neither do I provide a woman with an abortive remedy".⁵⁰ It should be borne in mind that neither Sezgin nor Ullmann refers to this work⁵¹ and that Sezgin identifies the quotation at pp. 138-139 as belonging to *Kitāb al-Ġanīn*.

- Text n. 18 (*Ḥawī* IX, p. 1479.23-29 [= pp. 138.19-139.8]).
- Text 20 (p. 1483.25-1484.1 [= p. 146.5-9]).⁵²

Fragments from Works Not Mentioned

Statements attributed to Hippocrates with no mention of the source occur in:

- Text n. 2 (p. 1416.22 [= p. 32.11-12]).
An abortive remedy is described.
- Text n. 5 (p. 1446.5-18 [= pp. 80.6-81.3]).
The woman's breasts can indicate a risk of miscarriage.
- Text n. 7 (p. 1450.20-28 [= pp. 87.19-88.14]).

The passage quotes five texts of Hippocrates mentioned by Ṭabarī in his *Firdaws al-ḥikma*.⁵³ Here I focus on the fifth in lines 27-28:

He said: "A short and long delivery come from the narrowness and the wideness of the womb, like the condition of citrons that enter in a big or small bottle, and from the abundance of sperm and its paucity".

The text is an abridgement of more extensive passages in *Kitāb al-Aḡinna*⁵⁴ and *Firdaws al-ḥikma*.⁵⁵ This passage from *Kitāb al-Aḡinna* is a faithful copy of *Firdaws al-ḥikma*, but in Ṭabarī and in Rāzī, the words *atarġa* and *qanīna* are used instead of *ḥiyāra* and *inā* as in *Kitāb al-Aḡinna*.

This is only one example to show that Rāzī relied on Ṭabarī rather than on *Kitāb al-Aḡinna*. The same conclusion may be drawn by comparing the whole quotation with *Kitāb al-Aḡinna* and *Firdaws al-ḥikma*. Rāzī and Ṭabarī use several words and phrases in common.

- Text n. 9 (pp. 1452.27-1453.2 [= pp. 91.18-92.4]).
A relationship exists between a thick sperm and the generation of a male.

(above, n. 39), p. 7, note 15.

⁵⁰ ὁμοίως δὲ οὐδὲ γυναικί πεσσὸν φθόριον δώσω. Hippocrate, *Œuvres complètes*, IV, Hakkert, Amsterdam 1978, p.630.9-10. Cf. also the editor's commentary *ibid.*, pp. 620-1.

⁵¹ Cf. Sezgin, *GAS* III (above, n. 8), p. 28, who gives also the alternative title *al-Aimān*, and Ullmann, *Medizin im Islam* (above, n. 8), pp. 32-3.

⁵² Both the texts are translated in Baffioni, "Synopsis of *Kitāb al-ḥawī fī l-ṭibb*" (above, n. 2), and Ead., "*Kitāb al-ḥawī fī l-ṭibb*, Parte IX 'Sulle malattie dell'utero e del feto'" (above, n. 2), p. 849.

⁵³ [*al-Ṭabarī*] *Firdausu'l-Ḥikmat or Paradise of Wisdom of 'Alī b. Rabban-al-Ṭabarī*, ed. M.Z. Siddiqi, Buch- u. Kunstdruckerei "Sonne", Berlin 1928 (now repr. as Vol. 29 of the series "Islamic Medicine" ed. by F. Sezgin, Frankfurt a. Main, 1996). Cf. p. 33.3 ff.

⁵⁴ *Kitāb al-Aḡinna li-Buqrāt* (above, n. 16), pp. 7-8. Arabic text *ibid.*, pp. 43.5-44.3 and 45.3-4, part. pp. 43.12-44.2.

⁵⁵ Cf. *ibid.*, Introduction, p. III. The Arabic original is in *Firdausu'l-Ḥikmat* (above, n. 53), p. 36.3-7 Siddiqi. Cf. also Hippocrate, *Œuvres complètes*, VII (above, n. 21), p. 499 ff.

- Text n. 10 (p. 1458.14-18 [= p. 101.12-18]).

It reports a statement by Sarābīūn⁵⁶ on the signs of pregnancy, followed by a general statement by Hippocrates, that a pregnant woman will drink hydromel (*māʿ al-ʿasl*, Greek μελίκρανον).

- Text n. 14 (p. 1471.26-29 [= p. 125.10-14]).

Hydromel and the preservation of a pregnancy are connected.

- Text n. 19 (p. 1483.17-20 [= p. 145.15-18]).

The quotation discusses the risks for the foetus at the [eighth] month of pregnancy; Sezgin includes this text among the quotations from *Kitāb al-Ġanīm*.⁵⁷

- Text n. 23 (p. 1489.22-23 [= p. 156.10-11]).

The quotation describes the same abortive remedy as in Text n. 2 above; Hippocrates' name is in this case associated with that of Dioscorides.

- Text n. 24 (p. 1491.10-13 [= p. 159.5-8]).

The quotation reports a remedy by Hippocrates against difficult delivery.

- Text n. 26 (pp. 1494.23-1495.5 [= pp. 164.19-165.5]).

The quotation discusses dangers related to retention of menses.

- Text n. 27 (pp. 1495.28-1496.1 [= pp. 166.13-14]).

Once again the dangers related to retention of menses are addressed.

Works by Hippocrates Mentioned Anonymously in Ḥāwī IX

The following titles of Hippocrates and passages from them are quoted anonymously in *Ḥāwī IX* in addition to the two quotations from *Fī Awġāʿ al-ʿadārā* (see Text n. 3, pp. 228-29) and *Kitāb Ḥabal ʿalā ḥabal* (see Text n. 11, p. 233-34) given above:

- *al-Abwiya waʿl-buldān* [Περὶ αἰσρων ὑδάτων τόπων, Littré II, 12-92]⁵⁸

4 quotations: p. 1487.5; two references to Book I (pp. 1450.5 and 1496.5) and one to Book VIII (p. 1450.9).

- *al-Fuṣūl* [Ἀφορισμοί, Littré IV, 458-608]

14 quotations: pp. 1428.24; 1440.14; 1443.20-21; 1463.20; 1487.14; 1505.11; references to Books I (p. 1473.14) and V (pp. 1399.22; 1432.20; 1437.15; 1473.6; 1478.23; 1494.12; 1498.5).

Works of Uncertain Attribution Anonymously Mentioned in Ḥāwī IX

There are also some anonymous references to works that might be ascribed to Hippocrates or to Galen. A future examination of the possible originals should help to establish the authorship:

- *Kitāb al-Aġdā* [Περὶ τροφῆς, Littré IX, 98-120]

1 quotation: p. 1413.26.

⁵⁶ There is some doubt as to who this Sarābīūn was: according to Oliver Kahl, Rāzī occasionally omits the “ibn”, but he seems to have had in mind the Nestorian physician Yōḥannān bar Serāpyōn [Ar.: Yuḥannā ibn Sarābiyūn] who lived in Iraq around 870 (O. Kahl, *The Sanskrit, Syriac and Persian sources in the Comprehensive Book of Rhazes*, Brill, Leiden – Boston 2015, pp. 47-8). Sezgin is of a different opinion in distinguishing between the father and the son (*GAS* III [above, n. 8], p. 228). With regard to the Syriac sources in general, Kahl remarks that none of the passages quoted in *Kitāb al-Ḥāwī* can be identified (*The Sanskrit, Syriac and Persian sources*, p. x, note 8).

⁵⁷ See above, n. 15.

⁵⁸ Sezgin, *GAS* III (above, n. 8), pp. 36-7 gives the title as *K. al-Abwiya wa-l-azmina wa-l-miyāh wa-l-buldān*, with references to *Ḥāwī IX*, 86-7, 151, 166. The title is quoted as *K. al-Abwiya wa-l-buldān* (and as *K. al-Hawāʾ wa-l-māʾ wa-l-masākin*) in Ullmann, *Medizin im Islam* (above, n. 8), p. 27, with references to *Ḥāwī IX*, 86 ult., 151, -3, 166, -3.

- *al-Ablāt* [Περὶ χυμῶν, Littré V, 476-502]
3 quotations: p. 1449.18; references to Books I (p. 1432.18) and III (p. 1432.18).
- *Ibidīmīā* [Ἐπιδημιῶν βιβλία I-VII, Littré II: *Ep.* Book I 598-716; Littré III: *Ep.* Book III 24-148; Littré V: *Ep.* Books II 72-138, IV 144-196, V 204-258, VI 266-356, and VII 364-468].⁵⁹

8 quotations: pp. 1495.23; 1504.26; 1505.6; references to Book II (p. 1473.11), to Chapter 3 of Book II (p. 1460.21), to Chapters 1 and 5 of Book VI (pp. 1401.22 and .25 respectively), and to Chapter 4 of Book VIII (p. 1475.10).

For the following titles more than one authorship has been proposed:

- *Masā'il al-mawlūdīn*, *Questions about the New-Borns*

1 quotation: p. 1491.14.

Sezgin ascribes the work to Galen,⁶⁰ but it could also correspond to the *Kitāb al-Mawlūdīn li-ṭamāniyat ašur* by Hippocrates quoted by Ullmann – with no references to the *Gynaecological Book*. Even in this case, recent research into these texts may be of some use.⁶¹

- *Kitāb al-Šan'a*, *The Book on the Art*

1 quotation: p. 1510.4.

The title could refer to Hippocrates' *De Arte* (Littré VI, 2-26), but Galen also wrote an *Ars medica* [Τέχνη ἰατρικὴ, Kühn I, 305-412].⁶² Various titles containing the word *šan'a* are mentioned by Sezgin,⁶³ but there seems to be no useful evidence for this identification. Ullmann mentions a *Kitāb Šan'at al-ṭibb* by Rāzī,⁶⁴ which should belong to the *Kitāb al-Ġāmi' al-kabīr*.

- *al-Ṭibb al-qadīm* [Περὶ ἀρχαίας ἰητρικῆς, Littré I, 570-636]

2 quotations: pp. 1438.28 and 1484.14.

⁵⁹ Cf. Sezgin, *GAS* III (above, n. 8), pp. 34-5, where the title is given as *K. Abīdīmīyā*, with the alternative title *K. al-Amrād al-wāfīda*. Cf. also G. Kessel, "Inventory of Galen's Extant Works in Syriac", Appendix 4 to J.C. Lamoreaux, *Hunayn ibn Ishāq on His Galen Translations, A Parallel English-Arabic text* [...], Brigham Young U.P., Provo Utah 2016, p. 178 who refers to § 101 of Lamoreaux's ed., and n. 95 in Bergsträsser's inventory in G. Bergsträsser, *Hunayn ibn Ishāq über die syrischen und arabischen Galen-Übersetzungen*, Brockhaus, Leipzig 1925.

⁶⁰ *GAS* III (above, n. 8), p. 113 without any further detail for identifying the work: he says that Rāzī's quotation in IX 159 is "ohne nähere Angaben". It should be the incomplete *Kitāb fī tawallud al-ḡanīn al-mawlūd li-sab'at ašur* (Περὶ ἑπταμήνων βρεφῶν). Ullmann, *Medizin im Islam* (above, n. 8), cites a *Maqāla fī l-mawlūd li-sab'at ašur* by Galen (p. 55), a *Kitāb al-mawlūdīn li-ṭamāniyat ašur* by Hippocrates (p. 31), and a book of the same title by Hunayn (p. 117), with no references to *Ḥawī* IX. G. Bergsträsser, *Neue Materialien zu Hunayn ibn Ishāq's Galen-Bibliographie*, Deutsche Morgenländische Gesellschaft, Leipzig 1932 mentions works *On the Seven-Months New-Born* (p. 86.10, tr. p. 93 = n. 63 1925 ed.) and *On Whether the Members of the Embryo Generated in the Womb are Formed All Together or Not* (p. 90.8-9, tr. p. 97).

⁶¹ Cf. U. Weisser, "Die hippokratische Lehre von den Siebenmonatskindern bei Galen und Tabit ibn Qurra", *Sudhoffs Archiv* 63 (1979), pp. 209-38 and L. Denooz, *Transmission de l'art médical de la Grèce à l'Islam: étude du traité Sur les fœtus de sept mois de Galien, de sa traduction par Hunayn b. Ishāq et de son commentaire par Tābit b. Qurra*, Association pour la promotion de l'histoire et de l'archéologie orientales, Liège 1999.

⁶² Cf. G. Kessel, "Inventory", in Lamoreaux (ed.), *Hunayn ibn Ishāq* (above, n. 59), p. 173, Hunayn § 6, Bergsträsser no. 4; Bergsträsser, *Neue Materialien*, p. 89.10, tr. p. 96 (this work differs from n. 4 of the 1925 ed.).

⁶³ *GAS* III (above, n. 8), Index *s.v.*, p. 464.

⁶⁴ Ullmann, *Medizin im Islam* (above, n. 8), p. 131, note 9.

Sezgin,⁶⁵ Ullmann⁶⁶ and Jennifer Bryson⁶⁷ attribute *On the Ancient Medicine* to Hippocrates.⁶⁸ Ullmann mentions an *al-Ṭibb al-qadīm* that has nothing to do with the Hippocratic Περί ἀρχαίας ἰητρικῆς and could be an original Persian production.⁶⁹ This theory is discussed by Kahl,⁷⁰ who also notes that Rāzī says it is the same as *al-Aqrabādīn al-ʿatīq* [quoted in *Kitāb al-Hāwī* at p. 1459.1], “the ancient dispensatory”, that is in turn the same as *al-Aqrabādīn al-qadīm*, a Syriac text of c. 750 [quoted in *Kitāb al-Hāwī* at p. 1507.21].

Conclusions

As we have seen the *Gynaecological Book* contains specific references to as well as quotations from works known to be by Hippocrates or part of the *corpus hippocraticum* but without mention of the author. Once the identification of these works is completed the number of references to Hippocrates may increase beyond the 27 passages dealt with in the present article. Two examples are the cases of the anonymous quotations from *The Pains of Virgins* and *On Superfetation* discussed above, pp. 228-29 and 233-34.

It is not always clear to whom the frequent statements introduced by *qāla* refer: they may be quotations from a source other than the one indicated before the *qāla*. This view is supported by the quotation from the *Book on Sperm* at p. 1458.25-27 (see above, p. 231), for example, which is from Galen. This passage is followed by two statements introduced by *lī*, and then by a statement introduced by *qāla*: “Take pastilles [made] of myrrh, storax and seeds of laurel and expose her to their aromatic smoke the whole day”. These ingredients are frequently mentioned by Hippocrates, but if I am not mistaken, the only prescription found in Galen’s *Book on Sperm* is the following:

It is not at all surprising that if a person swallows a small amount of silphium juice, whether Median or Cyrenaic, something of its quality is detected in his urine itself and in his sweat, just as happens, I believe, with rue or garlic or anything of that kind.⁷¹

Rāzī’s attributions may of course be incorrect: the most obvious case is that of the texts ascribed to the *Oath*.

In some cases my research led to results that differ from Sezgin’s conclusions. Three of Rāzī’s quotations ascribed to *Kitāb al-Ġanīn* (or *Kitāb al-Aġinna*) are differently identified by Sezgin, with the first of the two texts ascribed by Rāzī to Hippocrates’ *Oath* (Text n. 18), to one of the anonymous quotations by Hippocrates (Text n. 19), and to the second text ascribed by Rāzī to *The Excision of Embryos* (Text n. 21) respectively.⁷² Sezgin also refers to Galen’s *Book on Sperm* also two quotations that belong to *Kitāb al-Manīyy* by Hippocrates (Texts nn. 15 and 22 above, see pp. 230-31).⁷³

⁶⁵ GAS III (above, n. 8), p. 43, with references to *Hāwī* IX, 69 and 147 (corresponding to our quotes).

⁶⁶ *Medizin im Islam* (above, n. 8), p. 31, also with references to *Hāwī* IX, 69.13, 147.3.

⁶⁷ *The Kitāb al-Hāwī of Rāzī (ca. 900 AD), Book One of the Hāwī on Brain, Nerve, and Mental Disorders: Studies in the Transmission of Medical Texts from Greek into Arabic into Latin*, Bell & Howell, Ann Arbor 2001, pp. 320 and 342.

⁶⁸ GAS III (above, n. 8), p. 43, with references to *Hāwī* IX, 69 and 147 (corresponding to my quotations).

⁶⁹ M. Ullmann, *Islamic Medicine*, Edinburgh U.P., Edinburgh, 1978, pp. 18 ff. and 120 note 26.

⁷⁰ *The Sanskrit, Syriac and Persian sources* (above, n. 56), pp. 50-1, where he emphasizes the scholar’s former attitude in favour of the Hippocratic work.

⁷¹ De Lacy’s translation, p. 135 in Galen, *On Semen* (above, n. 33). The context explains that parts are accorded depending on their nature.

⁷² See above, n. 15, and pp. 235, 236 and 238.

⁷³ See above, n. 31.

Finally, Sezgin recognizes two quotations as taken from the *Book on Superfetation*; but the first corresponds to Text n. 8 above (p. 234) ascribed to the *Book on Pregnancy*.⁷⁴ *Kitāb al-Ḥabal* might be an abbreviated form of the title *Kitāb Ḥabal' alā ḥabal*, but so far I have not found similar passages in the Arabic version of the work.⁷⁵

My comparisons have also contributed to the emendation of the Arabic text of *Ḥāwī* IX.

With regard to the claims of the editors of *Kitāb al-Aḡinna*,⁷⁶ my examination of Texts nn. 4, 12, 13, 16 and 25 shows that if Rāzī was working from that version he has paraphrased more often than he quotes it.⁷⁷ In the present article the case is supported by the comparisons of the well-known tale of the girl's abortion obtained through jumping up and down: Text n. 16 bears some resemblances with the first version of *Kitāb al-Aḡinna* for its rendering of "jumping up and down" – and even more so Text n. 15, which consistently uses the terms formed from the root *w-ṭ-b*. On the other hand Text n. 16 is the only one that uses the term 'uṣ'uṣ for "coccyx", whereas Text n. 22 is entirely different from the first version but is the only one that shares the mention of the "seven times/jumps" with the second version. In this case the resemblance of Rāzī's quotations with *Kitāb al-Aḡinna* is again very limited. It is more likely that he rephrased both the Arabic versions, relying largely on his memory. If Rāzī used the version of *Kitāb al-Aḡinna* now available, it must have been a corrupt copy and he must have changed its meaning and hence misled the translator of the original.

With regard to *Firdaws al-ḥikma*, the wording of Text n. 7 – of which I give an example above, see p. 235 – contrasts with the opinion of Lyons and Mattock in that Rāzī is very close to Ṭabarī, who died about half a century before him.

I am sure that further data can be found through a detailed examination of Withington's list, and I hope in the near future to publish a complete translation of the Hippocratic quotations discussed in the present article.

⁷⁴ See above, n. 42.

⁷⁵ Cf., for a different context, Hippocrate, *Œuvres complètes*, VIII (above, n. 6), p. 501.

⁷⁶ See above, p. 229-30.

⁷⁷ This agrees with Ullmann, "Die arabische Überlieferung" (above, n. 39), p. 7 and note 14.



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