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Talmud**

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AKKADIAN HEALING THERAPIES IN THE BABYLONIAN TALMUD

M. J. Geller

Abstract

The Babylonian Talmud preserves some of the very latest traditions from Babylonia from the period when cuneiform script was still legible, and one of the last uses of cuneiform tablets was to consult the ancient 'sciences' of astronomy (including astrology), mathematics, omens, and healing (medicine including magic). The present study will argue that throughout the third century CE rabbis in Babylonia continued to acquire technical information from Babylonian scholars who could read cuneiform, and some of this information was translated into Aramaic and was recorded haphazardly in the academic discussions of the Talmud. The nature of the Talmudic sources and the final redaction of the complex work meant that traditions from Graeco-Roman Palestine were mixed in with local traditions from Babylonia, and the dichotomy is particularly evident in fields of medicine and magic, in which clear distinctions can be made between Greek and Akkadian approaches to healing. The present work, in two parts, is an attempt to sort out the source material according to whether it originates from Babylonia or not, and to focus on Akkadian parallels to Talmudic discussions of healing therapies.

PART I: AKKADIAN MEDICINE IN THE BABYLONIAN TALMUD – AN OVERVIEW

An overview of passages dealing with medicine in the Babylonian Talmud requires some preliminary discussion of methodology, because of the complex composite nature of the sources, which have been compiled and edited over several centuries.¹

Medicine and healing therapies were well-developed sciences by the time the Babylonian Talmud was edited in the sixth century CE by mostly anonymous editors.² Greek

¹ Work on this overview of Akkadian medicine began during my stay in 2000-2001 as a Fellow at the Netherlands Institute for Advanced Study in the Humanities and Social Sciences (NIAS), as part of a research group studying Greek and Babylonian medicine. I am particularly grateful for help from my research group colleagues Marten Stol, Philip van der Eijk, and Manfred Horstmanshoff. Work on this project continued during my research visit to the Max Planck Institute for the History of Science, Berlin, and the Institut für Judaistik of the Freie Universität, Berlin, for three months in 2002, funded by the Alexander von Humboldt-Stiftung. I would like to thank Peter Damerow and Peter Schäfer for all manner of support and assistance during my stay in Berlin.

medicine was used throughout the Greco-Roman world, and sources from Palestine tend to show the influence of Hippocratic medicine.³ The present paper will attempt to distinguish between Hippocratic medicine and its contemporary Akkadian medicine in Babylonia, although we will focus as much as possible on Babylonian medicine in the Babylonian Talmud. As we will see below, Hippocratic medicine can be distinguished from age-old traditions of Babylonian medicine (and magic) which were still in use in Babylonia perhaps even as late as the Sassanian period (throughout the third century CE). Late cuneiform tablets represent what remains of Babylonian 'science', which includes divination, astronomy, and mathematics.⁴ Babylonian medical texts and incantations are also preserved on clay tablets in the latest archives from Babylon, dating to the Seleucid and probably Parthian periods.⁵ Talmudic medicine therefore turns out to be drawn from two quite different systems of ancient scientific medicine derived from Greece and Babylonia, each preserving its own methods and philosophy of healing.

This survey is limited to the Babylonian Talmud, rather than to Rabbinic literature as a whole, which is not simply a matter of practical limitation of a large topic. The present overview will attempt to distinguish as much as possible between medical traditions originating in either Babylonia or Palestine, but the primary focus will be on Talmudic medicine originating in Babylonia which can be traced back to cuneiform tablets. Julius

² See the recent comments by J. L. Rubenstein, *Journal of Jewish Studies* 54 (2003), 71.

³ The influence of Greek science and thought on Hellenistic Palestine has generally been well established, although few studies have been devoted to specific influences of Greek medicine on Talmudic medicine; see S. Newmyer, 'Talmudic Medicine and Greek Sources', *Koroth* 9 (1985), 34-57, suggesting parallels between Hippocratic and Talmudic medicine. An important contribution to the discussion has been made by G. Veltri in his *Magie und Halachah*, (Tübingen, 1997), 222ff. Nevertheless, parallels between Greek and Talmudic medicine have mostly been based upon isolated Greek medical terms which appear in the Talmud, rather than any comparisons of systems of medicine; see for example S. Kottek, 'Sur l'origine gréco-latine de certains termes médicaux utilisés dans le Talmud et le Midrash', in *Le Latin Médical—La constitution d'un langage scientifique*, ed. G. Sabbah (St. Etienne, 1991), 41-52. The assumption in the present study is that the Hippocratic Corpus in general provides better parallels with Talmudic medicine than later phases of Greek medicine, such as in Galen. We cannot expect to find influence of Galen's work (from the second century C.E.) in the East before the Byzantine period, since it took several centuries for his great works to become popular.

⁴ The use of cuneiform in Babylonia is somewhat comparable to the use of Egyptian language and scripts in Egypt, where hieratic script was limited in late periods to writing religious and scientific texts, such as rituals, hymns, astrology and magic. Clement of Alexandria, *Stromateis* V, 4, No. 20, 3, comments that the priestly scribal curriculum in his day (second century CE) still consisted of learning hieroglyphic, hieratic, and demotic scripts. See J. Dieleman, *Reading Magic, the Social and Cultural Context of Two Demotic-Greek Magical Handbooks* (unpublished Ph.d dissertation, Leiden, 2003), 56.

⁵ See I. L. Finkel, 'On Late Babylonian Medical Training', in *Wisdom, Gods, and Literature*, Fs. W. G. Lambert, ed. A. R. George and I. L. Finkel (Winona Lake, 2000), 137-223.

Preuss' great work on biblical and talmudic medicine⁶ never differentiated between sources from Babylonia and Palestine, nor did Preuss pay attention to differences in time periods when traditions emerged. Hence, *tannaitic* and *amoraic*⁷ statements from both Babylonia and Palestine were simply treated thematically, as if belonging to a single time sequence and tradition of medicine.

Medical and healing traditions from Babylonia and Palestine diverged considerably, both because of their respective social-historical contexts and from their scientific bases. The Parthian and Sassanian empires had little in common with the Roman Empire, since these empires were usually bitter enemies separated by a vast expanse of desert. Likewise, those Jews in Palestine who were immersed in Greco-Roman culture had a much different world-view than their Jewish counterparts in the Babylonian world, who knew no Greek nor were familiar with Greek thought. An amusing but revealing anecdote in Ned. 66b relates that a Babylonian Jew married a woman from Palestine, but whenever he asked his wife to do something in Aramaic, she completely misunderstood him. For instance he asked her to cook feet (of an animal), but instead she cooked lentils. Since ordinary expressions from Babylonian and Palestinian Aramaic were not always understood, difficulties could easily arise with technical terminology.⁸

The Talmud consists of two strata, one comprising attributed traditions from teachers ('Amoraim') living between c. 200 - 450 CE, while the anonymous editors ('Stammim') compiled and edited the text during the ensuing two centuries. The attributed traditions, according to J. L. Rubenstein's analysis, are mostly in Hebrew, while the anonymous editorial writing was mostly in Aramaic.⁹ The theoretical basis for the present overview goes further in asserting that texts in Hebrew in the Babylonian Talmud dealing with medical matters most likely originated in Greco-Roman Palestine, while texts in Aramaic most likely originated in Babylonia; the former were likely to have been influenced

⁶ *Biblich-talmudisch Medizin* (Berlin, 1911), translated by F. Rosner, *Julius Preuss' Biblical and Talmudic Medicine*, (New York, London, 1978), but Preuss was unable to treat the Talmud philologically.

⁷ See, for convenience, H. L. Strack and G. Stemberger, *Einleitung in Talmud und Midrasch*, (7th ed., Munich, 1982), 16f. and 185ff. The term *tanna* (plural *tannaim*) refers to a rabbi or teacher whose opinions and teachings pre-dated 220 CE, from Palestine, usually recorded in Hebrew in the Mishnah and Tosephta. An *amora* (plural *amoraim*) was a rabbi or teacher who flourished in Palestine or Babylonia after this date until c. 500 CE, whose statements and opinions were recorded in the Gemara, a commentary on the Mishnah. The Mishnah and Gemara together were known as the Talmud, of which two versions were compiled, one in Palestine and one in Babylonia (hence the Jerusalem Talmud and Babylonian Talmud). The Gemara, however, often recorded traditions known as *beraitot* which were *tannaitic*, i.e. ascribed to rabbis who flourished before 220 CE.

⁸ Reference courtesy M. Sokoloff.

⁹ See Rubenstein, JJS 54, 71. Although this observation is extremely useful for our own analysis, the medical material does not always conform to this pattern, since attributed comments are in either Hebrew or Aramaic, depending upon whether traditions originated in Palestine or Babylonia.

by Greek science, and the latter by Akkadian science. This may be a rough guide, and the present discussion will periodically examine how accurate a distinction this proves to be. These differences are not simply based upon language but the different contexts in which medical lore is transmitted between Palestine and Babylonia. Greek medicine, which would have been prevalent in Hellenistic Palestine, differed substantially from Babylonian medicine in several characteristic features. Greek physicians developed a new approach to healing, which was a direct result of the theory of humours. Disease, according to developing ideas in Greek medicine, could be controlled through manipulating the body's internal imbalances, such as through diet, purges, and responding to environmental factors (seasonal changes), regimen, and finally bloodletting as the ultimate result of this logic. Babylonian medicine, on the other hand, retained its age-old approach to disease as the result of the attack of demons or external factors, for which remedies consisted primarily of drugs administered orally, through the anus, or through massage or fumigation. Diet and regimen were not considered as therapy, purges were uncommon, and bloodletting is so far unattested in Babylonian medicine. Hence, one can distinguish rather clearly between the approaches of Greek and Babylonian medicine, independently of language differences, and these distinctions help us in determining which type of system of medicine is being cited in any particular Talmudic passage.

The usual problem which arises in discussions of ancient medicine is trying to distinguish between so-called 'rational' and 'irrational' treatments, i.e. medicine vs. magic. This paper will not make such a clear distinction, but will treat both medicine and magic under a single umbrella of 'therapy'. One can treat physical symptoms (e.g. pain, fever, nausea) and treat psychological problems (paranoia, schizophrenia, anxiety, depression), although a patient can suffer from more than one condition at the same time, i.e. he can have a fever and suffer from depression. Hence, we will include certain forms of 'magic' if they are deemed to be part of general therapy for illness, although the main focus of this paper will be on treatment of physical rather than psychological ailments.

Finally, comparisons between Babylonian Talmudic medicine and Akkadian medicine are fraught with difficulties, because of the very different nature of the sources. Any references to medicine in the Talmud are purely coincidental and serendipitous, cited as aspects of daily life which were loosely associated with points of Jewish law or custom. Hence, any medical recipes or remedies which are cited in the Talmud are unlikely to be complete or even intelligible, since only enough is quoted to give an indication of the type of healing being discussed, rather than citing a recipe for actual medical use. We never have a full medical text in the Talmud, but only fragments of such texts, often within an anecdotal context, nor is the Talmud a reliable or full source for data on the state of Babylonian medicine in late antiquity. Furthermore, any information which goes back to cuneiform sources was usually garbled in transmission, since the Talmud was redacted well after cuneiform had died out, after which cuneiform sources were no longer read or understood.

On the other hand, the record on the Babylonian cuneiform side is also far from complete. Despite the large number of medical tablets there remain many gaps in the medical corpus. Furthermore, cuneiform sources primarily give us recipes or lists of symptoms, but without any of the social context of Babylonian medicine. We have no evidence of how much physicians in the late period would have charged for their services, or even *if* they charged for their services. We have little discussion of a theory of medicine, other than assumptions that we derive from the magic corpus regarding demons and sinfulness bringing misfortune and disease. It is in this realm that the Talmud can help flesh out the picture, since occasionally the Talmud discusses disease in more general terms, occasionally explaining why an illness develops or why one remedy is effective. The question, of course, is whether we can argue backwards from the Talmud into cuneiform sources, and whether we can assume that certain ideas in the Talmud ultimately came from Babylonia, even though we have no evidence of such ideas in cuneiform literature. This material can only be properly assessed once the relevant data has been gathered.

Healers, Physicians, and Personalities

Among Talmudic rabbis, there are discernible differences among authorities who discuss medicine. Abaye (died 339 CE), for instance, is the strongest proponent of traditional Babylonian medicine, and much of the information garnered from his statements is based upon Akkadian medicine as well as magic. R. Yohanan (died 279 CE), on the other hand, was probably influenced by Greek medicine¹⁰, since he himself lived in Roman Palestine.¹¹ Finally, Mar Samuel (died 254 CE) may exceptionally have been familiar with both systems of medicine, Greek and Babylonian,¹² and there is evidence in the Talmud that he also took technical advice from a local Babylonian scholar with an Akkadian name, Ea-uballit, who at that time might still have consulted tablets (see Shab. 11 6a).¹³ On the other hand, Mar Samuel, also known as 'the Astronomer' (*yrhyn'h*), was cited as the physician of the

¹⁰ judging by his pronouncements on medicine in Shab. 109b and 11 0b.

¹¹ For traditions about R. Yohanan preserved both in the Palestinian and Babylonian Talmuds, see R. Kalmin, *Sages, Stories, Authors, and Editors in Rabbinic Babylonia* (Atlanta, 1994), 87ff., in which Kalmin argues that traditions regarding R. Yohanan in the Babylonian Talmud can be traced back to Palestinian sources.

¹² See F. Rosner, *Medicine in the Bible and Talmud* (New York, 1977), 156-170, in which Rosner considers Mar Samuel to be the outstanding medical expert mentioned in the Talmud. We would argue, however, that many traditions regarding Mar Samuel are unreliable, since he was associated both with Judah the Prince and with King Shapur, and few of the traditions ascribed to Samuel resemble medical literature *per se*.

¹³ See Rosner, *Medicine*, 159, citing Shab. 156b and Ab. Zar. 30a for passages preserving dialogues between Samuel and Ablat, and M. J. Geller, *Zeitschrift für Assyriologie* 87 (1997), 56f., identifying Ablat as a Babylonian with the Akkadian name Ea-uballit.

Patriarch R. Gamliel, who suffered from weakness in his eye (BM 85b). The tradition is unlikely to be true, considering the vast distances between Palestine and Babylonia, and the tradition casts doubt generally on the historical reliability of Talmudic anecdotes about healers.

One issue never clearly resolved in the Talmud is the difference between roles of rabbis and doctors in healing. Ab. Zar. 27a comments on the distinction made in Mishnah between Gentile doctors who heal for money or heal for personal reasons (*npšwt*). Although the Mishnah refers specifically to Palestine, the Babylonian Talmud comments that healing for money is preferable, especially when danger is involved. Evidence for paying a physician occurs in a humorous anecdote, in Aramaic, concerning a discussion between a hunchback rabbi and an heretic (Sanh. 91a). R. Gebiha bar Pesisa, a fifth-century Babylonian rabbi,¹⁴ argues with a Min (heretic) about whether the dead can come back to life. The Min threatens to strip the rabbi of his hump, to which the rabbi replies in Hebrew, *if you could do that you would be called a 'master physician' (rwp' 'wmn)*¹⁵ and could earn lots of money, suggesting that physicians could charge for their services.

Ab. Zar. 26b-27 generally discusses what illnesses can be healed by Gentile doctors on Shabbat.

Furthermore, in Ab. Zar. 28a, Minyomi the Doctor reported to Raba that all fluids are bad for the ear except for 'juice' of kidney (*my' dkwlyyt'*), since animal kidneys featured in Babylonian medicine as *materia medica*. Other physicians are mentioned by name in the Babylonian Talmud, such as Theodos (Naz. 52a, although with a Greek name) and R. Nathan (Pes. 52a), but little is known about them,¹⁶ and suspicion of doctors can be seen in the Hebrew aphorism, 'the best of doctors is destined for hell (gehinnom)'.¹⁷ On the other hand, both R. Yohanan and Abaye were reported in Ab. Zar. 28a to have suffered from ailments for which they respectively consulted 'expert physicians' (*rwph mwmḥh*).

In Sanh. 75a, doctors and rabbis dispute over love-sickness, and whether woman should be required to submit to a man on health grounds; doctors argued that a woman was obligated to have sex with a man who suffered from love sickness, while rabbis argued that such coercion was immoral. Another hint of rivalry between doctors and healing rabbis appears in a story about the family of Benjamin the Doctor ('*sy*'), complaining about rabbis who did not 'permit the raven or forbid the dove' (Sanh. 99b); although the exact nature of the reference is obscure, it may well refer to disputes over appropriate *materia medica*.

¹⁴ Presumably this is the R. Gebiha in Strack and Stemberger, *Einleitung*, 102, about whom little is known.

¹⁵ Although in Aramaic contexts in the Babylonian Talmud the word '*wmn*' usually refers to a 'blood-letter', often pejoratively, in this particular context the word appears to retain its basic meaning 'craftsman'.

¹⁶ See Kidd. 82a and Rosner, *Medicine*, 154.

¹⁷ Rosner, *Medicine*, 152.

We have little information regarding where medicine was practiced, since clinics as such did not exist. A statement in Baba Qamma 46b, attributed to the third century scholar R. Ashi (who moved from Babylonia to Palestine), says that if one is in pain he goes to the house of the physician ('sy'). The opposite is described in an anecdote in which a doctor ('sy') came to the patient's house and when seeing a gourd, the doctor departed saying that the angel of death resided in the house; the physician had observed a bad omen, indicating that the patient would die.¹⁸ The situation is similar to that described in the Babylonian Diagnostic Handbook¹⁹, which begins by describing ominous signs which the incantation priest (or therapist) sees when he is on his way to the patient's house, in order to render a prognosis. Omens include a variety of animals or handicapped persons, or even mundane objects such as a potsherd or kiln-fired brick, and many of these omens or signs will mean that the patient will die.²⁰ The Ned. 49a passage ends with a Hebrew aphorism, that 'it is prohibited to speak about it in front of an ignorant person', which is an accurate reflection of a phrase often occurring in colophons of cuneiform tablets dealing with esoterica subjects, in which the scribe is warned against revealing the contents of the tablet to anyone not initiated or trained.²¹

We do not know how much medical knowledge would have been transmitted in rabbinical academies, as opposed to other kinds of schools (or scribal schools) where medicine may have been taught,²² and the relationship between rabbis as healers and other kinds of physicians remains obscure. Two anecdotes in Ab. Zar. 28a may shed light on the subject. In one account, a rabbi reports that he learned his remedies in the academy (*by mdrs'*), which would correspond to the scribal school among Babylonian scholars. On the other hand, R. Yohanan, in his lecture in the academy (in Palestine), betrayed a confidence

¹⁸ Ned. 49a (in Aramaic). Leaves of a gourd could also be used as *materia medica*, as in Ab. Zar. 28b.

¹⁹ The Akkadian Diagnostic Handbook was a lengthy compilation of symptoms from head to foot, compiled by Babylonian scholars as a means of prognosis, to predict whether the patient would survive or improve. For the text, cf. R. Labat, *Traité akkadien de diagnostics et pronostics médicaux* (Paris, Leiden, 1951), N. Heeßel, *Babylonish-assyrische Diagnostik* (Münster, 2000), and M. Stol, *Epilepsy in Babylonia* (Groningen, 1993), 55-98.

²⁰ See A. R. George, 'Babylonian Texts from the Folios of Sidney Smith', *Revue d'assyriologie* 85 (1991), 137-163.

²¹ Cf. A. Livingstone, *Mystical and Mythological Explanatory Works of Assyrian and Babylonian Scholars* (Oxford, 1986), 259-262, giving examples of colophons of esoteric tablets which expressly prohibit the contents of the tablet to be revealed to anyone who is not knowledgeable or initiated, i.e. included within learned circles where such matters are taught. Medicine also qualifies as an esoteric science, see I. L. Finkel, apud *A Scientific Humanist* (Fs. A. Sachs), ed. E. Leichty et al. (Philadelphia, 1988), 148f., giving a colophon which warns the uneducated against reciting medical omens. Similar warnings were known in the Greek world, as shown by the statement in the *Papyrae Magicae Graecae* VII 7, 25, 'give the answer to no one'. A late example of this warning can be found in the so-called Dynastic Prophecy, dating from the early Seleucid period, see R. van der Spek, Fs. H. Sancisi-Weerdenburg (Leiden, 2003), 31l ff., and see 323f.

²² See Finkel, Fs. W. G. Lambert, 137ff., cited fn. 5 above.

of a woman healer by revealing the secret remedy she had given him. It is difficult to know what this latter account tells us about the relationship between rabbi and doctor or healer, but the implication is that the rabbi contravened normal conventions by publicly divulging healing practices carefully guarded by healers or physicians.

One of the few Talmudic personalities concerned with medicine, as well as with magic, was Abaye, who lived from c.280 to 339 CE.²³ Abaye, who himself suffered from dropsy (Shab. 33a), frequently claimed to have learned his considerable knowledge of magic and medicine from his mother; the usual rubric added to Abaye's comments is, 'my mother told me'. However, there is a problem with the credibility of this tradition, since it is also known that Abaye's mother died in childbirth (see Kidd. 31b). Moreover, even if one considers his 'mother' to be a surrogate mother or nurse, it is unlikely that a woman would have had access to technical medical knowledge, with the possible exception of midwifery. We would suggest another possible interpretation to Abaye's frequently repeated statement that his 'mother told him', that the word for mother ('*m*') in these contexts could have been an abbreviation for the word 'expert' ('*wmn*'), corresponding to Akkadian *ummānu*, 'professor, expert, craftsman', the schoolmaster of the scribal school.

In Jewish circles, teachers were 'rabbis', who were trained in Jewish law, but not necessarily in 'scientific' subjects, with a few notable exceptions being rabbis who were particularly interested in healing therapy, astronomy, or maths. One word for a secular expert (not a rabbi) was the '*wmn*', 'craftsman' (corresponding to Akkadian *ummānu*), but the problem is that the Aramaic word '*wmn*' had become devalued as a term for a bloodletter, similar to a barber-surgeon in medieval Europe.²⁴ Baba Bathra 21a quotes a ruling that if a resident in a courtyard wanted to become a circumciser (*mohel*), bloodletter ('*wmn*'), tanner, or teacher of young children, the other residents had the right to object and prevent him from doing so, because of the nuisance such activities would cause. Similarly, in Baba Bathra 21b, Raba is quoted as saying that a teacher of young children, a vine-dresser, a ritual slaughterer, a bloodletter ('*wmn*'), and a town scribe can all be dismissed from their jobs immediately if they are incompetent. All of the professions mentioned in this passage were considered to be of low grade. Similar statements in Baba Bathra 22b-23a refers to the nuisance caused by bloodletting near palm trees, since ravens were attracted to the blood and would damage the trees.

Despite the poor reputation of bloodletting as an occupation, one anecdote praised the piety of Abba the 'bloodletter' ('*wmn*') (Taan. 21a-21b). Abba's praise incited Abaye's envy, who had become an authority on healing. One of Abba's favourable traits was that whenever a young scholar consulted him, Abba not only refused to accept a fee, but after treating his patient (presumably with bloodletting), Abba also would give him some money

²³ Strack-Stemberger, *Einleitung*, 99.

²⁴ Sokoloff, DJBA 90, gives the derivation of this word from Akkadian *ummānu*, but does not suggest any pejorative connotations.

for food, advising the patient to go and regain his strength. The story incidentally shows that treatment, as a rule, was accompanied by payment.

In general, however, the term '*wmn*' lacked the prestige of its Akkadian counterpart *ummānu*. Hence, Abaye's phrase attributing his knowledge to his '*m*' might have been an allusion to a secular, non-rabbinic expert or master, an '*wmn*', but the redactors of the Talmud would have found this term unacceptable or incomprehensible and the tradition was altered. Such a suggested solution would explain why Abaye's knowledge of Babylonian medicine seemed far superior to that of his contemporaries, and it resolves the thorny problem of explaining how a woman would have been in a position to impart such technical knowledge, which is unexpected in other sources.

Disease Taxonomy

One important consideration in dealing with Talmudic medicine is to see if any consistent *system* of medicine can be defined by the evidence, comparable to Greek and Babylonian medicine. Does Talmudic medicine comprise a systematic collection of procedures, which would include diagnosis, prognosis, and treatment? Or is Talmudic medicine simply a collection of random opinions and recipes from various individuals, without having any conceptual framework?

One of the complications of our source material is that diseases were often known by Hebrew names probably imported into Babylonia from Palestine at the time when Tannaïtic texts were introduced into Babylonian academies. Although we are trying to focus on traditions exclusively in Babylonia rather than Palestine, nevertheless it is often difficult to unravel the threads of traditions, particularly since the same diseases were being diagnosed in both places. Hence we will cite relevant material in Hebrew or Aramaic, with the assumption being that some data was brought from Palestine to Babylonia, but characteristics of the diseases continued to be discussed in Babylonian academies.

One text, from B.M. 107b, consists of a collection of aphorisms in Hebrew and Aramaic from various authorities from both Palestine and Babylonia, amalgamated into a single narrative. This passage is introduced as an explanation of Deut. 7.15, that 'God will remove from you all diseases', and it attempts to establish 'natural' causes of disease, in addition to demonic causes. The text states (in Hebrew): *99 people died through evil eye, and one from natural causes*. Alternative causes for disease are also suggested (in Hebrew), e.g. diseases are caused by draughts (lit. wind *rwḥ*)²⁵, cold (*synh*), and 'gall' (*mrh*), probably based upon proverbial advice regarding good health. The point of the proverb is that *natural*

²⁵ Akkadian texts also assume wind as a source of disease, as in the following cuneiform example: BAM II 2 ii 1f (= BAM VII No. 4 ii 8'), *diš na giš-šú im iš-biṭ...*, 'If a man's penis is "blasted" by wind'... There is no modern edition of these texts at present.

(ie. draughts or cold) rather than *supernatural* causes (demons, divine anger, sin) are identified as causes of illness, although more weight is given to disease originating within the sphere of 'magic' and incantations.²⁶

Another Hebrew passage, a *beraita*, gives the opposing view: *dropsy is caused by sin*,²⁷ *jaundice by unfounded hatred, croup (diphtheria?) is caused by gossip* (Shab. 33a). Although the proverb originates in Palestine,²⁸ the Aramaic comment on this passage suggests that it was the subject of debate or discussion in Babylonia as well. The Gemara observes that Raba (died 352 CE) suffered from dropsy, the reason being that 'more souls are killed by the "pot" (or "intestines", i.e. delayed defecation) than by being bloated by hunger', and Raba suffered from dropsy because his colleagues forced him to teach at fixed times when he was not able to use toilet.²⁹ The statement has been transformed from supernatural to a natural cause for dropsy, which results from poor toilet habits rather than serving as a punishment for sins. A similar example of a 'natural' cause for disease is expressed in Kidd. 2b, which quotes a popular Hebrew proverb ('thus it was told to us') that excessive eating and drinking cause 'discharge' (*zybh*). Similarly, Ber. 54b (in Hebrew) describes ten things which cause piles, with reference to toilet habits; see below under diet and regimen.

What is lacking, in fact, in the Talmudic Aramaic medical corpus – and in cuneiform medicine – is any general 'theory' of disease, in contrast to Egyptian medicine, which had a theory revolving around faeces and faecal matter. Egyptian physicians thought that faecal matter was carried by the blood vessels directly from organs to the anus, and as this faecal matter circulated in the body, it caused infection and disease.³⁰ The main treatment used by Egyptian doctors consisted of enemas, and even in later Ptolemaic Egypt there were physicians who specialised in administering enemas, and these specialists were known as

²⁶ See J. N. Ford, 'Ninety-Nine by the Evil Eye and One from Natural Causes'; KTU 1.96 in its Near Eastern Context', *Ugarit Forschung* 30 (1998), 201-278.

²⁷ a statement reiterated by R. Nahman in Yeb. 60b.; this may be the R. Nahman who ranked among the fifth generation of Palestinian Amoraim (Strack-Stemberger, *Einleitung*, 100), in the latter part of the fourth cent. CE.

²⁸ See Strack-Stemberger, *Einleitung*, 191f..

²⁹ Theories about digestion may have been common to both Greek and Babylonian medicine, since the fourth century BCE medical work of Anonymus Londinensis quotes Euryphon of Cnidos, 'when the belly does not discharge the nutriment that has been taken, residues are produced, which then rise to the regions about the head and cause diseases', translation W. H. S. Jones, *The Medical Writings of Anonymus Londinensis*, (Cambridge, 1947), 33. For Euryphon of Cnidos, see V. Langholf, *Medical Theories in Hippocrates* (Berlin, 1990), 21-24, identifying this physician as an elder contemporary of Hippocrates. Nevertheless, the fact the Euryphon is from Cnidos may be relevant, since certain parallels have been identified between early Greek writings ascribed to Cnidos and Akkadian medicine; see M. J. Geller, *Archiv für Orientforschung* 48/49 (2001-2002), 52f.

³⁰ See H. von Staden, *Herophilus, the Art of Medicine in Early Alexandria* (Cambridge, 1989) 11-12. See p. 11, that the faecal matter 'constitutes the main pathogenic agent in Pharaonic medicine.'

Shepherds of the Anus.³¹ A theory of faecal matter is also not to be found in Greek medicine, even among distinguished Greek physicians who lived in Alexandria such as Herophilus. The point is that Egyptian medicine in this respect was somewhat simplistic and had no detectable influence either upon Mesopotamian or Greek medicine, as far as we can tell.

Many of the diseases are only known in the Talmud by their Palestinian labels. A good example is the disease known as *qordiakos*, which although derived from a Greek word, the term is not used as a disease name in Greek sources. It is clear in b.Git. 67b that the term *qordiakos* was not understood in Babylonia; the Aramaic Gemara simply asks, 'what is it'? Furthermore, comments in the Gemara indicate that commentators on the Mishnah were unclear as to the nature of the disease, and whether it is a medical condition or a label for an ailment caused by demons (Git. 67b).

Another example of a Hebrew disease name is *špdyn'* (var. *špdwn'*, *šyprwn'*), translated by the Soncino Talmud as 'scurvy', although Preuss preferred to identify it as stomatitis.³² The term refers generally to teeth or gums, and explained in Hebrew as, '*it starts in the mouth and finishes in the bowels*' (Ab.Zar. 28a). The Gemara comments (in Aramaic) that symptoms arise when something is put in the mouth and draws blood from the gums, caused by cold from wheat or heat from barley, or left overs of a cup of *ħrsn'*³³. The etymology of the disease-name also remains obscure.

The word for 'gout' is a Greek loanword, which became used in both Hebrew and Aramaic contexts. The Gemara in Sanh. 48b observes (in Hebrew) that R. Judah was affected by gout (*pwdgr'* = Gr. *podagra*), but in Aramaic, Mar Zutra (died 417 CE) asked what it is (i.e. he was not familiar with the Greek word), and was told that gout was like needles in flesh.

Asthma appears to have two Hebrew designations, one being 'heaviness of heart' (Shab. 140, *ywqr' dlyb'*), and second being '*short breath*' (*rwħ qšryt*) caused by the demon *bn nplym* (Bech. 44b, in Hebrew).

Although these diseases are known from Hebrew contexts and descriptions, other diseases known in Babylonia have parallels in Akkadian medicine, such as fevers. Sanh. 47b (Aramaic) states that it is customary to take dust from grave of the rabbi as a remedy for 'one-day' fever (*'yšt' bt ywm'*). Further designations of fever are found in Shab. 67a, namely 'tertian' fever (*'št' tylt'*) and inflammatory fever (*'št' šmyrt'*)³⁴. Such designations of types of fever look Babylonian, since Akkadian sources refer to one-day old fever, etc.³⁵

³¹ Ibid., 23.

³² Preuss, *Medicine*, translation Rosner, 171f., and see Sokoloff, DJBA 970.

³³ Likely to be from Akkadian *arsānu*, groats.

³⁴ = Akkadian *šemirtu*, see Sokoloff, DJBA 961, noting the Akkadian cognate. One anomaly, however, is that in Ab. Zar. 27b, the Aramaic term '*yšt' šmyrt'*' is mentioned in a Hebrew context as to whether it

One general but rather rudimentary theory regarding fever occurs in Yoma 29a (Aramaic), which cites a proverbial statement that the 'end of summer is more harmful than summer', and the 'analogy' (*symnyk* = lit. your sign) is a heated oven. On the other hand, a fever in winter ('*yšt' dsytw'*) is worse than in summer, and analogy (*symnyk*) is a cold oven. This theory runs against the rule adumbrated by Diocles quoting Hippocrates, that 'diseases are intensified by similars, but resolved by opposites, since even Hippocrates himself has said that [diseases] are cured by their opposites;' Diocles therefore concludes that a burning fever in winter is easier to cure than in summer.³⁶ Such theoretical speculation is usually lacking in Akkadian medicine, which tends to consist of standard library texts or recipes with relatively few late commentaries explaining the terminology of medical texts, but even these commentaries hardly expound the Babylonian concept of disease.³⁷ Nevertheless, the idea of a 'sign' (*ittu*) in Akkadian denoting esoteric information derived from omens and symptoms is well attested, and has applications similar to the use of *symn'* in the context above.³⁸

Nevertheless, one can find examples of Aramaic discussions, in this case referring to fevers, which emanated from Palestine and show parallels with Greek medicine. In Ned 41a, for instance, Raba (died 352 in Babylonia) cites a saying (in Western Aramaic) that a 'fever' ('*yšt'*) once in 30 days would be beneficial like a '*tyryyqy'*, i.e. a loanword from Gr. *thēriakē*, 'medication',³⁹ and it seems mostly likely that Raba was quoting a statement from the West. According to Hippocratic ideas, body heat was important for digestion, and Aristotle considers the 'cooking' (*pépsis*) of food within the body to be analogous to cooking food on a fire.⁴⁰ Since Aramaic does not distinguish between 'fire' and 'fever', it was

can be healed on the Sabbath, and although in Hebrew, this passage is unlikely to have originated in Palestine.

³⁵ See, for instance, Heeßel, *Diagnostik*, 173f. and 182, in which the Diagnostic Handbook describes symptoms of a burning fever lasting for one, two, or three days, or alternatively six days if it is fatal. Cf. M. J. Geller, *Bulletin of the School of Oriental and African Studies* 60/2 (1997), 344-345, for a discussion of the Aramaic terms for fevers.

³⁶ P. van der Eijk, *Diocles of Carystus*, vol. I (Leiden, 2000), II 3.

³⁷ A selection of commentaries on medical texts can be found in late Uruk texts, but these are difficult to understand. See H. Hunger, *Spätbabylonische Texte aus Uruk I* (Berlin, 1976), 34-42 and M. Civil, 'Medical Commentaries from Nippur', *Journal of Near Eastern Studies* 33 (1974), 329-338; George, *Revue d'assyriologie* 85, 137-163.

³⁸ A good example of Akkadian *ittu* corresponding to Greek *sameia* or Aramaic *symn'* occurs in a symptom described in the Diagnostic Handbook, Tablet 29, which states that if a baby is born along with a particular epilepsy-demon, one must bury the child like a stillborn baby, and the 'sign' (*ittu*) of such a baby being born is that he constantly cries, turns over, and stiffens his limbs (see Heeßel, *Diagnostik* 318, 324).

³⁹ Jastrow, *Dictionary*, 1667.

⁴⁰ See Langholf, *Medical Theories* 89 and 126. Diocles, already in the fourth century BCE, identified 'fever' with 'fire', which was an idea later adopted by Galen, see van der Eijk, *Diocles*, 123.

possible to consider the notion of fever (= fire = cooking) as occasionally beneficial, but this conclusion does not seem to be attested in Babylonian medicine.

Several key passages in the Talmud concern eye disease. The point, here again, is that remedies represent a mixture of sources from both Palestine and Babylonia, probably because *stibium* or *kohl* (antimony) was universally recognised as an effective drug for eye disease. In addition to stibium, passages in Hebrew also recommend the use of wine, saliva, *kohl* and collyrium for eye disease (Shab. 77b and 80a, 151b, and Shab. 108b). In the last case, however, the Aramaic text suggests that cold water and hand/foot rubbing is more effective than the use of collyrium, possibly because collyrium may not have been used in Babylonia.

Other symptoms of eye disease appear to be drawn from both Palestinian and Babylonian sources. In BM 78b, we see parallel Hebrew and Aramaic terminology. Hebrew *bryqh* (lit. lightning, referring to eye problems)⁴¹ is translated into Aramaic as *nhwryt* '(blinding) light',⁴² although Raba translated the term as '*bzqt* ('foot disease)').⁴³ Ab. Zar. 28b gives various symptoms of eye disease⁴⁴ as 'discharge' (*ryr*'), 'pricking' (*dys*'), 'congestion' (*dm*' – or just blood!), 'tears' (*dym^ct*'), and 'inflammation' (*qydh*'). These symptoms occur 'at the beginning of the sickness' (*thlt wkl*), showing a calque on the Akkadian word *akālu*, 'to be in pain'.⁴⁵ This passage was cited in the name of the Babylonian scholar 'R. Yehudah', but the passage following in the same context (mentioning illnesses associated with the bath house) seems likely to have originated in Palestine. The confusion arises because two different sources might be represented here, one being R. Yehuda bar Ilai, a second century Palestinian scholar, and other R. Yehudah bar Yechezqel, a Babylonian teacher from Pumbeditha who died in 299 CE (ibid. 93);⁴⁶ both were known simply as R. Yehudah, without a patronymic. Furthermore, a parallel text, Betz. 22a, gives the same symptoms for eye disease: *ryr*', *dys*', etc. duplicating Ab. Zar 28a, ascribing the

⁴¹ The term *brqt*' also occurs in Git. 69b, see M. J. Geller, 'An Akkadian Vademecum in the Babylonian Talmud', apud *From Athens to Jerusalem*, ed. S. Kottek and M. Horstmanshoff (Rotterdam, 2000), 18f. The term also occurs in Aramaic incantation bowls, cf. J. Naveh and S. Shaked, *Magic Spells and Formulae* (Jerusalem, 1993), 137, translated by the authors as 'cataract'. Cf. M. Stol, 'Blindness and Night Blindness in Akkadian', *Journal of Near Eastern Studies* 45 (1986), 295-299; the term 'lightning' for 'blindness' has no exact parallel in Akkadian.

⁴² Cf. Jastrow, *Dictionary*, 881, Sokoloff, DJBA 732.

⁴³ According to Jastrow, *Dictionary*, 4, although Sokoloff, DJBA, 195, resolves the problem by translating this word as an Afel form of the root *bzq*, 'to scatter, sow, to shine'. Neither definition is well-substantiated by supporting evidence.

⁴⁴ The text is in Aramaic but may have originated in Palestine.

⁴⁵ See M. J. Geller, apud *A Traditional Quest* (Fs. L. Jacobs), ed. D. Cohn-Sherbok (Sheffield, 1991) 105f., and see also Ned. 54b, which asks whether fish are good or bad for the eyes and comments that the question refers to the 'end of the sickness' (*swp wkl*).

⁴⁶ Strack-Stemberger, *Einleitung*, 83 and 93.

text to Amemar, a late Babylonian teacher,⁴⁷ but without referring to either a bath house or bloodletting, and hence it may have been a text originating in Babylonia.⁴⁸

We find a description in Aramaic of death by croup ('*skr*') in Ber. 8a, although this disease name is so far unattested in Babylonia.⁴⁹ Skin problems are also mentioned in the Talmud. In Shab. 77b, we find the word *ktyt*', 'scab' (cf. also Hebrew *ktyt*), for which honey is prescribed.⁵⁰

Yom. 77b discusses washing hands before eating, and Abaye comments in Aramaic, *mšwm šybt*', "(one washes) because of *šibta*". The Aramaic term may be cognate to the Akkadian disease term *šibu*, although the nature of the disease is undetermined.⁵¹

Other types of ailments are also mentioned in the Talmud, such as kidney stones and stricture,⁵² dogbite (see Yoma 83b, with an Aramaic recipe, see below), abscess (*syṭm*', Ab. Zar. 28a and *smṭ*', Shab. 67a), ear problems (Ab. Zar. 28a), and a split in the rectum (Ab. Zar. 28a). One of the more serious diseases is 'epilepsy', which probably refers to any condition involving seizure. The condition is known in the Talmud by its Hebrew name (*nkph*), even in Aramaic contexts.⁵³ In Ket. 77a, for instance, 'epilepsy' is described as being either *qby^C* 'regular' and *l' qby^C* 'irregular'. If 'regular', the disease is considered to be a 'hidden' bodily defect (disqualifying a priest for temple service), or if attacks occur irregularly it is a 'revealed' bodily defect.

The exact nature of the disease *ra'tan* is unknown, but Ket. 77b gives the symptoms as follows: eyes 'drip' (*dlpn*)⁵⁴, his nose runs (*dyyby*), he has spittle (*ryr*') in his mouth, and flies fly around him. Similar Akkadian therapeutic texts describe disease symptoms as eyes dripping, nose running and spittle in the mouth, although the Aramaic word *ra'tan* has no Akkadian cognate.

⁴⁷ From the sixth generation of Babylonian Amoraim, see Strack-Stemberger, *Einleitung*, 101.

⁴⁸ One set of recipes in Ab. Zar 28b is attributed alternatively to R. Assi or R. Ammi (both third generation Palestinian Amoraim), although the recipes themselves look Akkadian and include Akkadian loanwords. For instance, one recipe for anal sores contains as *materia medica* both *nṭp*' (= Akkadian *naṭpu*) and '*sn*' (= Akkadian *asnû*) 'Dilmun date', and it is unlikely that this recipe originated in Palestine.

⁴⁹ See Preuss, *Medicine*, translation Rosner, 157-160; the Greek etymology must be disregarded.

⁵⁰ Sokoloff, DJBA 610 relates this word to *ktyš*', 'bruised area'.

⁵¹ See *Chicago Assyrian Dictionary* Š/2, 399, and Jastrow, *Dictionary*, 1557, cites *šybt*' as the 'name of an evil spirit', cf. also Hul. 107b; see also Sokoloff, DJBA II 32, although the association with a demon is based upon later Geonic explanations of the word.

⁵² See M. J. Geller and S. L. Cohen, 'Kidney and urinary tract disease in ancient Babylonia, with translations of the cuneiform sources', *Kidney International* 47 (1995), 181I-1815.

⁵³ The etymology of *nkph* is difficult, see Jastrow, *Dictionary*, s.v. *kph*.

⁵⁴ Akkadian *dalāpu* refers to sleeplessness as a physical rather than emotional state, while *dalpu* is 'weary-eyed from watching'; see *Chicago Assyrian Dictionary* D 49 and 52.

Finally, Ab. Zar 28b refers to general internal disease as '*wnqly*'.⁵⁵ The Gemara asks what '*wnqly*' means, and the answer is '*štwmk' dlyb*', which seems equally obscure.⁵⁶

Diagnosis

One general problem of diagnosis in both Palestine and Babylonia is whether one must follow a physician's instructions even though the patient himself claims that he is not ill. The Talmud comments (in Aramaic) that the patient's opinion may be affected because *twnb'* (stupour) has seized him, and his opinion is thereby invalidated (Yom 83a). A similar topos occurs in Akkadian medicine, that the patient is not aware of his illness: 'if at the time, it [seizure] has seized him, his heart is awake [or he is conscious]: it [the disease] will be eradicated. If, at the time it [seizure] has seized him, his heart is not awake [or: he is unconscious]: it [the disease] will not be eradicated.'⁵⁷

The text of Ned. 40a comments that during the first three hours of the day, a patient's 'mind is relieved' and during the last three hours of the day, 'weakness is severe'. Such general medical observations were used among all systems of diagnosis and prognosis, but the Aramaic text was probably based upon local medical lore from Babylonia, rather than from Greek sources. Babylonian *maššartu* or 'watches' divided the day into three hour intervals, as does the Talmud, and one Babylonian diagnostic text bases symptoms on the relative condition of patient either at night vs. morning, or in mid-day, e.g. 'when he (the patient) is ill at night and well in the morning.'⁵⁸

Yeb. 76a describes two different diagnostic tests for a penis which is perforated at the corona, to see if semen is ejaculated normally or from the wrong 'hole' (thereby disqualifying the priest from serving in the Temple). Rabba bar Rabba wrote to R. Yoseph (died 333 CE in Babylonia) asking for advice. The answer was to take warm bread of barley and put it on the anus, and see what happens when semen is emitted. It is difficult to make sense of the passage beyond concluding that it represents an attempt at using some form of diagnostic procedure.

⁵⁵ Etymologised by Jastrow, *Dictionary*, 30, from the Greek *agxolē*, which is implausible since Aramaic *qof* corresponds to Greek *kappa* and not *chi*, nor do the vowel patterns correspond.

⁵⁶ See, Jastrow, *Dictionary*, 98, 'heart muscle', but given by Sokoloff, DJBA 121f. with its variant, '*štwmk*', as 'opening of the stomach', accepting the etymology as a loanword from Greek *stomachos*. The evidence in any case is very sparse.

⁵⁷ Translation Stol, *Epilepsy*, 67. See also N. Heeßel, *Babylonisch-assyrische Diagnostik* (Münster, 2000), 152-154, which describes several instances in which the patient is not aware that he staggers or that he is ill.

⁵⁸ Heeßel, *Diagnostik*, No. 17: 74.

The most important innovation of Greek medicine was the case history, in which the patient is given a name, and his individual symptoms were carefully noted.⁵⁹ No such information is ever recorded in Babylonian medical texts, although one has information about individual patients from the royal correspondence, such as letters referring to the illness of King Esarhaddon of Assyria.⁶⁰ The Babylonian Talmud, by contrast, contains a number of anecdotes about illness, sometimes mentioning a particular rabbi who was healed or some member of a rabbinic household, but these cannot be considered actual 'case' histories in the Greek sense. No proper descriptions of symptoms or the course of the disease itself is given in these anecdotes, but simply that a certain patient was ill and was healed by a certain procedure (see for example Sanh. 101a). Abaye himself, for instance, refers to his own medical condition, dropsy, being alleviated by medications.

There are two anecdotes in the Talmud, however, which provide useful information about diagnosis. The first case refers to R. Hisda's daughter, who followed custom and immersed herself (in the *mikvah*) within 30 days after giving birth and caught a chill, because, the Talmud explains, her husband was not with her to keep her warm (Shab. 129a). The observation provides a rationale for her illness (i.e. that her husband did not sleep with her during the period after emersion), rather than assigning a supernatural cause for the disease.

A second anecdote comes from Palestine, but the story was known in Babylonia and aroused comment. R. Gamliel ruled that a fourth sister was absolved from circumcising her son because sons of three other sisters died from it (Yeb. 64b). A second account was given, in which R. Yohanan (also in Palestine) ruled that although two sisters had circumcised children who died, a third sister was told to circumcise her son as well. The Talmud reports Abaye's comment in Aramaic, that a ruling in favour of circumcision under such circumstances is dangerous.⁶¹ Nevertheless, the issue is one of genetic disposition, and rabbis in Palestine recognised that genetic propensity was a factor in the occurrence of disease. This story has a reflection in another passage (Shab. 134a) in which R. Nathan the Babylonian went to coastal towns (Phoenicia?) and Capadocia and advised mothers not to delay circumcision if two infants had died previously, and in one case the baby was jaundiced (yellow). This account originates within the Roman Empire, but the matter was discussed in Babylonia as well.

⁵⁹ M. D. Grmek, *Diseases in the Ancient Greek World* (Baltimore, 1989), 284ff.

⁶⁰ See S. Parpola, *Letters from Assyrian Scholars to the Kings Esarhaddon and Assurbanipal* (Neukirchen-Vluyn, 1983), 229-238.

⁶¹ Abaye was presumably commenting on the earlier discussions of this case from previous generations of scholars, such as R. Yohanan.

Diet and regimen

Although an interest in diet and regimen was the subject of much discussion and theory in Greek medicine,⁶² nothing comparable is known from the Babylonian medical corpus except for a few aphorisms. Similarly in the Babylonian Talmud, we can distinguish two kinds of texts dealing with diet and regimen, some reflecting the more theoretical approach of Greek medicine, probably coming from the Greco-Roman cultural milieu of Palestine, and the second type of advice originating from Babylonian folk wisdom.

Tractate Berakot contains collections of Hebrew proverbs probably from Palestine, and a number deal with diet and regimen. One aphorism states that one must drink water with food to avoid bowel trouble, and the text gives culinary advice on how to avoid disease (Ber. 40a, in Hebrew). Another passage argues that long strides reduce eyesight by 1/500th (Ber. 43b, in Hebrew), followed by further advice on recommended foods (Ber. 44b, in Hebrew). Shab. 41a records a passage in Hebrew (mostly beraitot) regarding eating without drinking, or bathing without drinking, or bathing without cold shower or without anointing, and delaying defecation.⁶³ Similar statements occur elsewhere in the tractate Shabbat, in which a number of Hebrew proverbs are quoted within the framework of a discussion in Aramaic, which probably took place in Babylonia. Nid. 17a, for instance, in Hebrew, provides a series of comments warning against sleeping in graveyard overnight, eating garlic, onion, egg, or liquids kept in a metal vessel overnight, or sex after bloodletting (*hqyz dm*); most of these are taboos associated with fear of demons, eg. disposing of pared nails.

Some of the adages or dietary rules show how little the communities of Palestine and Babylonia knew of each other. In Ket. 77b, for instance, the Hebrew citation explains that no one suffers from the disease *ra'tan* in Babylonia because they eat beets and drink beer, nor do Babylonians suffer from leprosy because they drink beer and eat beets and bathe in the Euphrates. A similar comment in Hebrew states (Nid. 17a, dupl. Ket. 77b) that bloodletting followed by sex leads to weak children who suffer from *ra'atan*.⁶⁴ Such ignorance of realities in Babylonia is matched by similar statements made about Palestine, such as the statement in Ket 75a, that the 'acid of wine' (*qywh' dlmr'*) could be used by priests against perspiration and peppers (*pylpl'*) could be used for bad breath; these unlikely

⁶² See van der Eijk, *Diocles* vol. I, 5, in which Diogenes cites Hippocrates' interests in dietetics as a form of healing. See also J. Chadwick and W. N. Mann, 'Regimen in Acute Diseases', apud G. E. R. Lloyd, *Hippocratic Writings* (Penguin, 1983), 186ff.

⁶³ One (Aramaic) comment from Shmuel (Shab. 41a) interjected a proverb or rule, 'vapour drives out vapour' (*'bl' mpyq 'bl'*), quoted as if referring to hot bath, although the reference is unclear and taken out of context.

⁶⁴ ascribed to the Babylonian R. Papa (died in Babylonia 375 CE), but the proverbial statement probably originated in Palestine. See below on bloodletting.

comments probably originated in Babylonia as fanciful reflections of what occurred in the Jerusalem temple.⁶⁵

Abaye's opinions (fl. 280-339 CE) always merit attention, for the purpose of seeking Babylonian parallels to Talmudic medicine, and his statement in Shab. 76b does not disappoint us. Abaye quotes a Hebrew proverb (*'a poor man eats bread of course flour'*) which resembles a Sumerian Proverb: 'let the poor man die, let him not live. When he finds bread, he finds no salt. When he finds salt, he finds no bread'.⁶⁶ Other Hebrew proverbs are quoted in Shab. 81a, such as *'diet to avoid hemorrhoids'*, and similarly a Hebrew rule of regimen cited in Shab. 81b warns against wiping oneself (after defecating) with a sherd on the Sabbath, because of witchcraft.

Occasionally the same proverb is quoted twice in the Talmud. For instance, Sanh. 101a quotes Mar Samuel (died 254) saying *'a change of regimen is the beginning of bowel sickness,'* whereas in another tractate he is again quoted as saying, *'change of diet is the beginning of illness'* (BB 146a), although elsewhere Samuel again elaborates this same point in somewhat different terms by quoting another Hebrew proverb, *'whoever sits fasting (habitually) can be called a sinner'* (Taan. 11 a). It seems clear that most of the adages referring to diet and regimen were preserved in Hebrew, often in the form of rules or proverbs, and it is likely that such proverbs originated in Palestine, reflecting the intense interest of Greek medicine in diet and regimen to control internal balance of the body fluids or 'humours'. Babylonian medicine, on the other hand, paid little attention to diet and regimen. Nevertheless, this is not to say that Babylonians were completely unaware of the importance of personal hygiene or healthy habits, such as regular toilet visits and avoidance of certain foods. One Akkadian proverbial statement, for instance, warns against intestinal worms (Akkadian *qūqānu*) from eating roots of leeks, which is almost repeated verbatim the Babylonian Talmud (Ber. 36a), in which barley flour causes tapeworms (*qwqy'ny*).⁶⁷

Hebrew was thus used as the language of proverbs, much in the same way that Sumerian was employed in proverbs in Mesopotamia to convey conventional wisdom, even in late periods. For example, the following Sumerian proverbs were later translated into Akkadian:

⁶⁵ Rivalry was also not unknown between schools in Palestine and Babylonia. Pes. 11 3b records a *beraita* reflecting on conditions in Babylonia, namely that dogs, fowl, and Magi (*hḥbryn*) hate each other, but an alternative saying replaced these characters by 'whores' and 'scholars' in Babylonia.

⁶⁶ Translation B. Alster, *Proverbs of Ancient Sumer* (Bethesda, 1997), I, 16: SP 1.55-56, *úku ha-ba-ug7 man-ba-da-ti-i ninda ì-pà mun nu-pà mun ì-pà ninda nu-pà*. Sumerian proverbs were copied in scribal schools long after Sumerian ceased to be spoken, but remained the traditional language of proverbs.

⁶⁷ See B. Landsberger, *Die Fauna des alten Mesopotamien* (Leipzig, 1934), 129, citing Akkadian *qūqānu* as both a field insect and intestinal worm. A similar abdominal problem is discussed in Shab 109b, containing a recipe against *qwq'yny* (intestinal worms).

mu.im.ma sum^{sar} im.ma..an.gu7.e mu.àm šà.mu al.gír.gír.e,
 šad-dag-da šu-[ma] a-ku-ul-[ma] šat-t[a] lib-bi iṣ-ṣa-r[ip-ma]
 Last year I ate garlic and this year my stomach burns.⁶⁸

Toilet habits were a topic of discussion, both in Palestine and Babylonia. In Palestine, one was advised to avoid sex after visiting the toilet because of fear of the toilet demon.⁶⁹ In this same vein, Ber. 61b reports that R. Hisda's daughter used to accompany him to the toilet to ward off demons, and that two rabbis in Tiberias used to enter the toilet together, for fear of demons. Associated with these accounts was an amusing story, in Hebrew, regarding R. Akiba following his teacher R. Joshua into the privy to learn good toilet habits, and an equally amusing story in Aramaic regarding R. Kahana hiding under his teacher's bed in order to learn about sex. Nevertheless, some of these toilet habits were taken seriously, since it was repeatedly claimed (in Hebrew, ascribed to R. Gamliel), that delaying urination or defecation causes dropsy and jaundice (Ber. 62b). The rule probably influenced the thinking of rabbis in Babylonia as well.

Although Greek medicine paid close attention to environmental hazards and the effects of climate on health, Babylonia tended to express such dangers in terms of portentous omens. According to Eruv. 65a, for instance, Mar Uqba (fl. 210-240 CE, Babylonia) did not go to the court during a south wind (šwt' = Akkadian šūtu), while R. Nahman (died Babylonia 320 CE) argued that a legal ruling (*halachah*) demands clarity like the North Wind ('stn' = Akkadian *iltānu*), both statements probably reflecting suppositions in Akkadian omen literature that the South wind was dangerous while the North wind was considered to be propitious.⁷⁰

An Akkadian pun

Finally, two of Abaye's comments about diet and regimen are based upon puns in Akkadian. These occur in a statement by Abaye in Keth. 10b, in the context of a discussion in Hebrew regarding when it is a good time to eat dates (morning and afternoon, but not noon). Eating dates before 'bread' (a meal) is like an 'axe (*nrg*) to a date palm', and after 'bread' (a meal) is like 'a door bolt'. Why should eating dates on an empty stomach be like 'an axe to a date palm'? Abaye's point is that eating dates will cause indigestion, make one throw up, or have diarrhea, etc. Why an axe to a palm tree? There are three Akkadian words which are

⁶⁸ W. G. Lambert, *Babylonian Wisdom Literature* 243; 249 iii 56-59. Another couplet occurs as follows, [Sum. lost] *li-pa-a la ta-ak-kal u da-ma la te-te-eṣ-ši*, 'Eat no fat and you will not defecate blood', *ibid.* 240; 247 ii 9-10.

⁶⁹ Git. 70a, citing a *beraita*.

homonyms and hence form a pun: the word 'aru' means 'frond of a date palm', while the homonym word 'arû' means 'to cut branches', and can refer specifically to a date palm. A third homonym 'aru' means to 'vomit'.⁷¹

The second part of Abaye's proverb is less comprehensible, but it relies upon an Akkadian term for the anus as a 'door' or gate (*bāb šuburri*). Eating dates after a meal causes constipation, described here metaphorically as 'bolt for the door' (*'cbr' ddš'*), with 'door' being a euphemism for 'anus'. In this vein, Akkadian *sikkuru* 'bolt' derives from a root *sekēru* 'to be stopped up', referring to parts of the body.⁷² Hence, Abaye was using a play on words which makes little sense when translated into Aramaic, without recognising the Akkadian idioms.

Therapy, treatments and recipes reflecting Akkadian influence

Previous studies of Git. 68a-70b have described the passage as an Aramaic medical handbook which was probably based upon an Akkadian vademecum, organised from head to foot.⁷³ The text is collection of recipes for various diseases, consisting of a combination of drug remedies and magical remedies which probably reflects the art of folk medicine in the third century CE. It is worth noting that the passage is not ascribed to any rabbi or source, and it contains a number of Akkadian loanwords and expressions, nor can any parallels in Greek medicine be identified.

The literary structure of the Talmudic vademecum is unique in the sense that it resembles neither Greek nor Akkadian therapeutic texts in its exact form, although in general terms there are many similarities with medical literature.⁷⁴ Each entry in the Talmudic vademecum begins with *l-*, 'for', followed by the name of the ailment or disease⁷⁵, which is then followed by an instruction, *lyty*, 'let one take' (*materia medica*) for the

⁷⁰ Cf., for convenience, *Chicago Assyrian Dictionary* A/1, 31l, citing the omen that 'when the South Wind blows, do not fight a battle', although there is abundant evidence for the propitious nature of the North Wind in Akkadian sources (*ibid.*, I/J 269).

⁷¹ i.e. *aru* = 'date palm frond', *arû* = vomit, and *arû* 'to cut branches', referring to a date palm, *Chicago Assyrian Dictionary* A/2 317. There may also be an association with Akkadian *erû*, 'bronze' alluding to a bronze axe, since the pun was already used in an Akkadian commentary on a medico-magical text dealing with childbirth. The commentary notes, *urudu = e-ru-u a-na a-re-e*, 'copper (or bronze) for 'conceiving' (*erû*), although the pun here includes several other possibilities for *arû*; see Civil, *Journal of Near Eastern Studies* 33 (1974), 332: 34.

⁷² See *Chicago Assyrian Dictionary* S 213, with passages from the Diagnostic Handbook referring to the intestines, penis, urinary tract, and lungs stopped up.

⁷³ See Geller, *Vademecum*, 13-32, and Veltri, *Magie und Halachah*, 239-249 (see fn. 2 above).

⁷⁴ D. Goltz, *Studien zur altorientalischen und griechischen Heilkunde* (Wiesbaden, 1974), 240-242.

⁷⁵ See Finkel, *Fs WGL* 150f., cites two very late Akkadian therapeutic texts, probably school texts, which give the name of the disease treated in the text as *ana summu*, 'for a wound'.

condition. The usual types of procedures are followed as one finds in Akkadian recipes, such as the making of potions (usually in wine, beer, or milk), concoctions to be eaten, tampons, salves, or bandages. *Materia medica* can be soaked in water or seived, dried in the shade, boiled, and medications are to be taken on an empty stomach, which is a common instruction in Akkadian medical texts.⁷⁶ Furthermore, the Talmudic vademecum, like other therapeutic texts, contains alternative remedies for the same condition, usually introduced by the term 'y lw, 'if not', which corresponds to 'ditto' (ki.min) in Akkadian recipes.

Among the identifiable diseases mentioned in Git. 68a - 70b are: blood in the head, migraine, blurred vision, nosebleed, blood from the mouth, toothache, tonsillitis(?)⁷⁷, diphtheria(?)⁷⁸, catarrh, abdominal ailments, constipation, diarrhea, spleen(-ailment), gall bladder(-ailment), loin(-ailment), and distension⁷⁹. Although these diseases have been surveyed previously, the text merits further intense study.

There are many other Aramaic passages in the Babylonian Talmud which give therapeutic recipes, although not as extensively or as comprehensively as that in Git. 69a. A good example of the genre occurs in Ab. Zar. 28a, a remedy for 'split' in anus:

'take (*lyty*) 7 grains⁸⁰ of worm(-coloured) alkali-plant (*'hl' twln'*)⁸¹, wrap (*šyyr*)⁸² them inside the neck (of a garment) (*bhll' dby šw'r'*), wind (*lykryk*) it in thick cord (*nyr'*), decoct it (*tmš*) it in white balm (*nṭp'*)⁸³, roast it and spread it (*bdr*) upon it (the anus).

⁷⁶ For Akkadian parallels, cf. P. Herrero, *Thérapeutique mésopotamienne* (Paris, 1984), 43ff., and Greek parallels to the Akkadian expression have been noted by Goltz, *Heilkunde*, 240-242. One difference, however, is that the Akkadian terms are much more widely attested than the corresponding Greek expressions.

⁷⁷ The word *hynq'* is a loanword from Akkadian *hinqū*, 'stricture', a symptom associated with the nose, although this etymology was not accepted by Sokoloff, DJBA 458. The word is associated with Latin 'astrangulo' by Rashi, which is not so far from the Akkadian meaning.

⁷⁸ The Akkadian disease name *būšānu*, although not accepted by Sokoloff, DJBA 250.

⁷⁹ = Akkadian *šemertu*, see Sokoloff, DJBA 961.

⁸⁰ Sokoloff, DJBA 564 reads *byny* in the printed editions as corrupt for *kwny*, 'measures', since the latter term appears in similar contexts in Git. 69a, containing a recipe for lung disease calling for 7 handfuls (*kwny*) of *materia medica*. There is confusion in the printed editions, however, since later in Git. 70a the text gives *bwn'* as a measure of capacity.

⁸¹ See Sokoloff, DJBA 85f. and II 97, relating this to Akkadian *uhūlu*, 'alkali', with the description of 'worm coloured'. This same ingredient occurs in another recipe in Git. 69b. The Akkadian plant, however, is usually described as *uhūlu qarnānū*, 'horned alkali' (although 'sprouted' alkali is an alternative possibility, see *Chicago Assyrian Dictionary* 133). The Akkadian expression does not match the description of alkali found in the Talmud. Could there be some misunderstanding here?

⁸² Akkadian *rakāsu*, see Goltz, *Heilkunde*, 71.

⁸³ = Akkadian *naptu*, although the definition 'naphtha' in the Akkadian dictionaries is doubtful. The translation follows Jastrow, *Dictionary*, 898, and the same word occurs similarly in Git. 69b. Sokoloff DJBA 750 translates the word as 'a solution of dates', based upon later a Geonic period commentary.

All of the enumerated instructions resemble Akkadian ones, such as 'take' (Akkadian *teleqqe*) the plant-remedy, wrap it in a cloth (Akkadian *ina šubati tašammid*), tie it with cord (Akkadian *nīru*)⁸⁴, decoct or macerate the drug in a liquid (*ina mē taramuk*)⁸⁵, then roast it (Akkadian *taqallu*)⁸⁶ to make a powder and finally sprinkle it (Akkadian *teṭetti*)⁸⁷ on the affected area.

A second recipe for the same ailment also employs idiomatic expressions found in Akkadian, such as taking the fat of a virgin goat (= Akkadian *uniqu lā petītu*) in order to make an ointment.⁸⁸

Ab. Zar 28a refers to another set of recipes, this time for ear disease:

'take (*lyty*) kidneys of a hornless goat (*brḥ' qrh'*)⁸⁹, tear it crosswise and place it on coals of a fire and let them put (*lyšdnhw*) these fluids (*my'*) which come out from it (the concoction) in the ears, not cold and not hot but tepid. If (that does) not (work) [second recipe], take (*lyty*) the fat⁹⁰ of a large-size beetle (*hypwšt' gmlnyt'*), let it be melted (*pšr*) and put into the ear. If (that does) not (work) [third recipe], let him fill his ear with oil (*mšh'*), and make 7 threads (*ptylt'*)⁹¹ of '*spst'*.⁹²

The recipe then calls for twisting the threads into a tampon which is ignited at one end and then inserted into the ear, presumably to draw out the wax or pus. The use of tampons of this kind is typical of Akkadian medicine dealing with ear problems.⁹³ The recipe ends with the warning to avoid draughts of wind, which might cause the burning tampon to singe the patient's ear.

A similar recipe occurs in this same context, referring to the unidentified disease *špdy* 'spdyn', perhaps referring to gum or tooth disease. The first remedy given is in Hebrew, suggesting a diet of water, olive oil, and salt, and probably not originating in Babylonia. The second recipe, however, calls for making an 'ointment (*mšh'*) of goose(-fat) on goose wing', to be applied externally.⁹⁴ The use of ointments was common in Akkadian recipes in

⁸⁴ Sokoloff, DJBA 753, noted the Akkadian cognate *nīru* to Aramaic *nyr'*. The *nīru* or cord, however, only appears occasionally in Akkadian medical texts, in magical contexts in which amuletic stones and knots are tied on a cord against paralysis; see *Chicago Assyrian Dictionary* N/2 265.

⁸⁵ see Goltz, *Heilkunde*, 27.

⁸⁶ *Ibid.*, 31.

⁸⁷ *Ibid.*, 54f.

⁸⁸ See Geller, Fs. L. Jacobs 103.

⁸⁹ See Sokoloff, DJBA 1039.

⁹⁰ cf. Akkadian *lipû* 'fat'.

⁹¹ = Akkadian *pitiltu*.

⁹² Akkadian *aspastu*, *Chicago Assyrian Dictionary* A/2 338, a rare foreign word but a plant name.

⁹³ See Herrero, *Thérapeutique*, 107.

⁹⁴ see Akkadian *kurkû*, 'goose', *Chicago Assyrian Dictionary* K 563, in which goose is used commonly as part of *materia medica*.

general,⁹⁵ but also commonly used for dental or gum problems.⁹⁶ The Talmud then reports an anecdote ascribed to Abaye that he tried this remedy unsuccessfully until he met an Arab who told him to roast an unripe olive pit on a new spade (*mr' ḥdt'*) and rub it on gum, and he was cured; this appended comment looks spurious.

A recipe in *Ab. Zar.* 28b was employed for an internal problem (*'stwmk' dlyb'*) (see above): 'take (*myyty*) cumin (*kmwn'*)⁹⁷, caraway (*krwyy'*), *nyny'*⁹⁸, *'gdn'*⁹⁹, savory (*šytry*), thyme (*'bdt'*, var. *'brt'*), and *llyb'* in wine'. In corresponding Akkadian recipes, plants and minerals were often crushed and mixed with wine to make a potion to be drunk by the patient.

As usual, a number of recipes are ascribed to Abaye, claiming to be taught by his 'mother', such as the following remedy from *Git* 67b, in which a 'one-day fever' (*šymš' bt ywm'*) is treated by giving the patient water; for a 'two-day fever', the patient is given *sykwry* (bloodletting?); for a 'three-day fever', the patient is given red meat and wine. For an 'old fever' (*šymš' ctyqt'*), the remedy consists of a magic ritual of applying a hen (*trnglt'*) to the patient's shaved head, after which the patient is immersed in a river. This kind of remedy is reminiscent of Akkadian Namburbî rituals, which were often administered to the patient at the river, while applying a hen to the patient's head has parallels in Akkadian magical rituals in which a pig is laid upon a sick patient to transfer the evil from all parts of the patient's body to that of the pig.¹⁰⁰ If that particular remedy does not work, an alternative recipe for *šymš'* (sun-fever) proposes imbibing red meat with wine. Finally, for a cold¹⁰¹, fat meat on coals with undiluted wine is to be administered to the patient. It is likely that these recipes are all abbreviated and corrupted, and although they may ultimately have been based upon more complex fever-remedies from Babylonia, there are no exact surviving Akkadian parallels.

Abaye offers a recipe in *Git.* 70a for the related condition of 'burning in bones,' but on this occasion Abaye cites a general rule of healing, that medicines should be taken on

⁹⁵ See Herrero, *Thérapeutique*, 98ff.

⁹⁶ See R. Campbell Thompson, *Proceedings of the Royal Society of Medicine* 19 (1926), 57ff., translating passages from two Akkadian medical compositions, 'If a man's teeth ache', and 'if a man's mouth is painful'. Many of the treatments include rubbing oils, salt, honey, or alum, as well as other *materia medica*, on the tooth, gums, or affected area of mouth and nose. These Akkadian texts await a modern edition before adequate comparisons with the Talmud can be made.

⁹⁷ = Akkadian *kamūnu*.

⁹⁸ = Akkadian *nīnū*.

⁹⁹ See Sokoloff, *DJBA* 78, giving a Neo-Persian etymology from *angudān*. It is striking how few Persian words one finds among Talmudic *materia medica*.

¹⁰⁰ See Geller, *Fs. L. Jacobs* 108.

¹⁰¹ *tlg'*, lit. 'snow', interpreted by Sokoloff, *DJBA* 1208 as (a chill caused by) snow, which is too literal; the word 'snow' is used here figuratively for a chill.

empty stomach (a standard rule in Akkadian medicine),¹⁰² for 3 or 7 or 12 days, and after taking medicines one should have the patient eat *šatita* with lentils and old wine, mixed together equally (another standard Akkadian rule),¹⁰³ and afterwards one must wrap the patient in his cloak to sleep. It is likely that this recipe is also misunderstood by the redactors of the Talmud. The word *šatita*, instead of referring to a dish, can simply be a general word for 'beverage', and the wrapping in the cloak is likely to be a corruption of the instruction to wrap *materia medica* in a cloth or wad of wool (Akkadian *itqu*) to be applied as a poultice.¹⁰⁴

Abaye elsewhere (Git. 86a) provides a remedy (for an unspecified ailment)¹⁰⁵ which looks Babylonian, judging by the minerals and *materia medica*. The recipe calls for 'slag of iron' (*gynbr'*), silver dross (*mrtk'*), and sulphur,¹⁰⁶ among other *materia medica*, to be applied with a feather.¹⁰⁷

Ket. 77b cites Abaye's remedy for *ra'tan*, which follows an enumeration of the disease symptoms (see above):

'it's remedy: *pyl'* (= Akkadian *pillû* 'mandrake'), *lwdn'* (var. *lwd*, *lydn'*, *lywdn'*), grinding (*gyrd'*) of a nut ('*gwz'*: var. *d'zg'* 'glass') and of '*šp'* ('hide'),¹⁰⁸ and the *klyl mlk'* ('crown of the king', var. *klyl' dmlk'*) of the *mḥl'* (var. *mḥly'*)¹⁰⁹ of a red date palm, boiled (*šlyq*) together equally (*bhdy hddy*, var. adds *mšpr' w^cd pny'*, 'from morning to evening').'

The rest of the recipe is also difficult: the patient is brought into a 'house of marble' (*byt' dšyš'*), but if there is none, he is brought into a house seven bricks thick (var. *lybny*, *lwbny*); 300 cups of the mixture are poured on his temple ('*cyt'*, '*ryyt'*)¹¹⁰ until his 'brain' is soft, and he *tears open* (*qr^c*) his brain [*mwhyh*] (var. *wqr^c lyh lmwhyh*) and brings 4 leaves of

¹⁰² See Goltz, *Heilkunde*, 240 n. 10, for a similar Greek expression from recipes.

¹⁰³ See Goltz, *Heilkunde*, 20, 32-33, 41.

¹⁰⁴ A wad of wool can be found in Ab Zar 28a, in a medical context.

¹⁰⁵ The text appends this recipe from Abaye to a discussion about a boil appearing on a slave, which could nullify the sale.

¹⁰⁶ *kybryt'* = Akkadian *kibrītu*, see Herrero, *Thérapeutique* 56. The Aramaic words for 'iron slag' and 'silver dross' are not well attested, but Akkadian *kibrītu* 'sulphur' occurs in medical recipes with other minerals, *ru'tītu* and *pappasītu*, yellow sulphur and white gypsum, which might prove relevant to the original meaning of the Talmud passage.

¹⁰⁷ The use of a feather to apply *materia medica* also occurs in a very late recipe ascribed to Mar bar Rab Ashi (458-468 CE) in Ab. Zar. 28a, in which goose fat is applied with a goose feather for toothache.

¹⁰⁸ but the var. *d'wškp'* 'saddler' is better, since Akk. *aškāpu*, 'leatherworker' is both plant name and stone name, see *Chicago Assyrian Dictionary* A/2 442.

¹⁰⁹ = Akkadian *tuhallu*, unripe date, see W. von Soden, *Akkadisches Handwörterbuch*, 1366.

¹¹⁰ See Sokoloff, DJBA 171, giving this as the 'bottom part of the skull'.

myrtle ('s') to be hung from each foot and put upon it, and it is taken with *shavings*¹¹¹ and burned or else it will return to him.

The garbled wording of this recipe gives the impression of an attempt at brain surgery, which is extremely unlikely. The misunderstanding can be explained by re-examining the terms involved. The phrase to be 'hung from each foot', for instance, probably refers to a foot of scales,¹¹² and the final clause that the medical application must be burned reflects a very much older although uncommon practice in Akkadian medicine, in which used poultices or bandages were to be burned.¹¹³ Furthermore, expressions such as *lmwhyh* does not refer to the 'brain' (*mwh*) but represents a verbal form with 3 m. s. suffix, lit., 'to mash it'. The verbs *qr^c* ('to tear'), *rpy* ('to make soft'), and *mwh* ('to mash'), all refer to things which are done to the *materia medica*, not to the patient.

The rest of the passage is also likely to be corrupt. For instance, 'house of marble' (*byt' dšyš'*) is probably for *by šmš'* 'at twilight'.¹¹⁴ The common Akkadian instructions upon which this text is probably based refer to preparing *materia medica* either in daylight (*ina mahar šamši*) or setting them under the stars (*ina kakkabi tušbat*).¹¹⁵

In Yeb. 76a, R. Idy bar Abin (lived c. 350 CE) supposedly wrote to his older colleague Abaye¹¹⁶ and asked about treating a perforated penis; the same passage (see above) recorded a diagnostic test to see if the perforation diverted the semen. The answer in this case was a recipe for healing the wound, namely to take a barley grain with which one lacerates (or scrapes) the perforation and takes fat and rubs it in. One takes a large (lit. 'camel-like') ant¹¹⁷ and have (the ant) bite it (the perforation), and (the ant's) head is cut off. A grain of barley is to be used (for lacerating the penis), since iron causes inflammation. This is done only if (the perforation) is small, but if (the perforation) is large, (the bandage) would be peeled off.¹¹⁸

Although the recipe as it stands has no parallels in Akkadian, there are features worth noting. Abaye's 'mother' has not been cited as the source for the recipe. Moreover, there are ingredients among the *materia medica* which could easily have become corrupted

¹¹¹ see Jastrow 1274 var. *šybt'*.

¹¹² See Jastrow, *Dictionary* 672.

¹¹³ A reference to the burning of bandages occurs in a medical tablet from Emar, from the mid-second millennium BCE, see A. Tsukimoto, 'By the Hand of Madi-Dagan, the Scribe and *Apkallu*-Priest', apud K. Watanabe, *Priests and Officials in the Ancient Near East* (Heidelberg, 1999), 194 and 197 (see II. 85-86). The same text also recommends a ritual involving an incense altar and binding the patient's head and waist with blue wool, after which the wool and ritual objects should be thrown into the river.

¹¹⁴ See Jastrow, *Dictionary*, 1602.

¹¹⁵ The instruction to set out *materia medica* 'opposite the sun' also occurs in Egyptian medical recipes, such as in a prescription for making eye ointments, cf. Dieleman, *Reading Magic*, 108.

¹¹⁶ although this might be a stylistic device.

¹¹⁷ See Sokoloff, DJBA 289, 755 and II 21, (*šwmšn' gml'*, var. *šwmšmn' gmln'*).

¹¹⁸ See Sokoloff, DJBA 1032 (although giving the reference to Yeb. 76a).

in the course of transmission. The use of an ant in recipes is not surprising, since in Akkadian recipes many different types of small animals, such as lizards and scorpions, were ground up and used as *materia medica*, or parts of their bodies were used.¹¹⁹ It would not be difficult for late redactors to mistake the use of an ant's head as part of *materia medica* to be confused with using the ant more dramatically in this text. It is also clear from the final comments that the wound is to be bandaged, which one expects with perforations of the skin. Finally, the use of a grain of barley as a scalpel is puzzling, as is the comment about avoiding the use of iron, although we know very little about even simple surgical procedures in Mesopotamia.

Pediatric medicine also featured in both Babylonian medicine¹²⁰ and in the Talmud, although rare in the latter sources. One passage, from Yom. 78b, refers to what is permitted to children, while adults are fasting. Abaye again quotes his 'mother': 'For growth of an infant (*rybytyh dynwq*), hot water and oil. If he has grown somewhat, egg in *kutaḥ*. If he has grown somewhat (more), breaking of (clay) pots.' It is not clear what condition this intends to treat, since the recipe is likely to have been quoted out of its original context and may simply have been a rule of nutrition for children. A comment is added by the editors of the Gemara, that Rabbah (a contemporary of Abaye) used to buy broken clay pots for his children to break--but this may simply refer to toys, not healing.

A further pediatric text appears in Keth. 50a, in which Abaye (another recipe from 'mother') states that a 'six-year old (child) bitten by a scorpion does not survive. What is the remedy? Gall (*mrrt*) of a white kite in beer, let it be rubbed into him and have him drink it. A one-year old (child) stung by a bee does not survive. What is the remedy? Creepers (*'šwwt*) of date palm.'¹²¹

Babylonian parallels can be found for this passage,¹²² which gives ages of child or young adult affected by 3 types of epilepsy or seizure. For example, a child affected by disease in his 3rd, 7th, or 10th year, but also adults in 20th or 30th year, are mentioned. In the first few recipes, patient will die (as in our Talmud text above), but the Akkadian recipe adds, 'he will die, but in order to avoid him dying, do such and such...'. Moreover, in an Akkadian therapeutic text *šimmatu*-paralysis was caused by a scorpion bite.¹²³ The point is

¹¹⁹ Herrero, *Thérapeutique*, 50f. Scorpion appears among *materia medica* in Git. 69b.

¹²⁰ See K. Volk, 'Kinderkrankheiten', *Orientalia* 68 (1999), 1-30.

¹²¹ For *'šwwt*, see perhaps *Chicago Assyrian Dictionary* A/2 355 s.v. *āšitu*, 'a palm leaf of a special nature', noted by Sokoloff, DJBA 159, although the Akkadian word is not attested among *materia medica*.

¹²² See Heeßel, *Diagnostik*, 318ff., Stol, *Epilepsy*, 89.

¹²³ See R. Campbell Thompson, *Revue d'assyriologie* 27 (1930), 128, and *Assyrian Medical Texts* (Oxford, 1923), No. 91, 1 rev. 1, 'if a man suffers from paralysis caused by scorpion' (*šimmat gír.tab gig*), although not following Thompson's translation of 'poison caused by a scorpion'.

that although such stings are not normally fatal, there was probably an assumption that stings and bites, such as dog bites, worm in the tooth, etc., caused diseases in general.¹²⁴

Finally, '*Dreckapotheke*' also appears in Talmudic recipes, but as '*Decknamen*' or secret names for plants, as in Babylonia and Egypt.¹²⁵ There are a number of instances of secret names for *materia medica* in the Talmudic medical handbook (Git. 68b-70a), usually given as excrement or blood of various animals, and these ingredients are usually mentioned with an appended note to be 'cautions' (*nzdhr*), since *Dreckapotheke* can cause harm. The point is that by the time the Talmud was finally redacted, it was no longer understood that *Dreckapotheke* represented secret names for ordinary plants. Within the Talmudic medical handbook, we find such ingredients as blood of wild cock, dust of the toilet, excrement of a white dog.¹²⁶

A good example appears in a recipe from Abaye in Eruv. 29b, which Abaye reportedly learned from his mother, to be used against 'weakness of the "heart"', probably impotence (with *lb'* as euphemism for the penis, as in Akkadian). The recipe instructs the physician to take flesh of the right thigh of a ram and 'dung of the pasture of Nisan', or alternatively the physician can take willow, which is probably the secret equivalent of the *Deckname*, 'excrement of Nisan'. The 'simple' drug is to be roasted and mixed in wine and drunk.

Materia medica

A rule of thumb (Aramaic *symn'*) for medical remedies is stated in Ab. Zar. 28b: 'wet for dry, dry for wet', meaning wet *materia medica* are to be applied to dry illnesses and dry *materia medica* are to be applied to the moist illnesses; the rule probably applies to skin conditions and abscesses.

¹²⁴ See I. L. Finkel, 'On Some Dog, Snake and Scorpion Incantations', apud T. Abusch and K. van der Toorn, *Mesopotamian Magic* (Groningen, 1999), 213-250, in which Finkel cites Akkadian texts stating that the dog's bite leaves behind its own offspring in the victim's flesh, and that the dog's saliva engenders a whelp. Although Finkel assumes this passage to be a description of rabies, it is equally likely that dog-bite was considered responsible for all kinds of conditions, including problems associated with childbirth.

¹²⁵ See the important article by F. Köcher in *Uruk die Gräber*, ed. R. M. Boehmer et al. (Mainz, 1995), 204f., which gives Akkadian recipes with the secret name of the *materia medica* as *Dreckapotheke* (human or animal excrement). Other examples of such *Decknamen* are 'donkey vulva', 'dust from the latrine', 'human bone' or 'elephant tusk'. Similar examples of secret names for *materia medica* are known from Greek magical papyri from Egypt, see *Papyri Graecae Magicae* XII 407-444, discussed by Dieleman, *Reading Magic*, 224ff. The purpose of the secret names was to prevent lay persons from trying to duplicate medical remedies.

¹²⁶ See Geller, *Vademecum*, 18ff., identifying secret names for *materia medica* in Talmudic recipes. The reference to dust of the toilet (p. 23) can now be equated with Akkadian *eper asurrê*, 'dust of the latrine.' I am indebted to Andrew George for the information that *asurrû* refers to the latrine or toilet.

One must, as always, distinguish between *materia medica* prescribed for diseases in Palestine from those in Babylonia, since flora will differ, as do medical traditions. It is possible, however, to identify *materia medica* in the Babylonian Talmud which were also traditionally used in Akkadian medicine.

One clear case of Akkadian *materia medica* can be found in wound therapy. We are dependent, once again, upon the advice of Abaye, who reports two remedies from his 'mother'. In Baba Qamma 85a, for instance, honey is cited as useful for healing wounds [a general rule]. Asked about healing a *grgwtny*,¹²⁷ Abaye defines the word and recommends using 'hl' *wqyr' wqlb'*, 'alkali'¹²⁸, wax, and pitch¹²⁹, just as elsewhere Abaye quotes from his 'mother': 'a wound dressing requires seven parts fat and one part wax (Shab. 133b)¹³⁰. Abaye's younger contemporary Raba argues for wax and pitch, but Raba commented that once when he taught this in Mahoza, a family of physicians 'tore them up' (presumably referring to the bandages), indicating professional rivalry.

Occasionally, *simplicia* are mentioned in the Talmud, consisting of a single plant or drug to address a single medical condition, and in many cases the Talmud asks for further clarification because the plant names are not recognisable, for various reasons. One cure for diarrhea, for instance, is the plant *dardara'* (Git. 70a), which Abaye has to translate (as *mwryq' dhwhy*), although the plant name is actually known in Akkadian as well. Similarly, the Talmud asks for what medical use the medicinal plant *grgyr* is known (Erub. 28b), but this plant is also known in Akkadian as *gurgurru*¹³¹. Another *simplicium* appears in Erub. 29b, in which Abaye quotes his 'mother' that hemp-seed (*kys'ny*)¹³² is good for the heart (mind) by annulling thoughts, presumably bad thoughts. Shab. 65a also records a *simplicium* recommending lumps of salt for diseased gums¹³³.

In Ned. 41b, a Hebrew proverbial statement claims that *crsn* is good for illness, but the Aramaic Talmud asks what this substance is. One authority explained *crsn* as 'husks of barley which are stuck in the top of the sieve', and Abaye comments that it requires boiling like ox flesh. It is likely, however, that the *materia medica* referred to corresponds to Akkadian *arsānu*-groats, which were boiled in a soup as part of the preparation of a

¹²⁷ Jastrow, *Dictionary* 264, defined as 'wicker work' or 'scarring'.

¹²⁸ = Akkadian *uhūlu*, see Sokoloff, DJBA 85.

¹²⁹ The meaning is uncertain, with many variants, but see Sokoloff, DJBA 1017. Pitch was sometimes used in Akkadian medical recipes for salves and bandages, see Herrero, *Thérapeutique*, 56.

¹³⁰ equivalent to Akkadian *lipū* 'fat' and *iškuru*, 'wax', commonly used together in bandages and suppositories in Akkadian medicine; see Herrero, *Thérapeutique*, 101.

¹³¹ see *Chicago Assyrian Dictionary* G 139.

¹³² Sokoloff, DJBA 577. This may be the same plant as Akkadian *kiššanu*, a legume, which is used in medical recipes, see *Chicago Assyrian Dictionary* K, 456f.

¹³³ Aramaic *dwršyṇy* = Akkadian *dūr šinnī*, lit. 'wall of the teeth' or gums.

remedy.¹³⁴ Another possible Akkadian etymology for *materia medica* occurs in Ned 8b, where Abaye reports that a "'mote' of the day(time) heals" (*hrg' dywm' msy*), likely referring to the name of a drug, and the same citation was repeated in Yoma 20b, *h'y hyrg' dywm' l' šmyh*, meaning that the letters *l'* are part of the name, i.e. the real name is *hyrgl'*¹³⁵. Since a 'mote' or particle of dust is an unlikely ingredient of *materia medica*, the term *hyrgl'* is likely to correspond to Akkadian *irgilu* (cognate to Syr. *ḥargālā* and Hebrew *hrgl*), a type of locust used in *materia medica*.¹³⁶ Two other types of locust are used in Akkadian medicine, one of which is the *erib tamti*, 'sea locust' or shrimp,¹³⁷ which might actually provide another clue to *hyrg(l)' dym'(sic)*, i.e. a type of 'sea locust'.

On the other hand, not every Talmudic discussion has merit in medical terms. A dispute whether fish are good or bad for the eyes was partially based upon a play on words, not on rational observation (Ned 54b). Other comments are dietary, such as the adage that Egyptian beer is a good laxative, while Babylonian beer was good for constipation (Shab. 11 0a).

We also find general discussions of descriptions of plants as *materia medica*, particularly when attempting to identify a Hebrew term with its Aramaic equivalent. An example, from Shab. 109b, equates Heb. 'zwb (hyssop?) with Aramaic 'brt' br hmg, var. 'brt' br hyng, or marjoram (*šwmšwq*).¹³⁸ Such descriptions of plants may resemble the canonical Akkadian plant lists known as Uruanna, in which the plants listed in the left-hand column are briefly described or explained in the right-hand column. Similarly, in Chul. 59a, the Gemara asks, what is *ty^ch* (= a plant)? The answer is a root of 'bitter plant' (*cyqr' dmryrt'*). Another example occurs in Chul. 58a, which explains (in Aramaic) the Hebrew plant name *hltyt* as a substance that can bore through to the bowels, and in fact, if one eats three shekels of *hltyt* on an empty stomach ('lyb' ryqn'), his skin (*mškyh*) will be stripped. Ingesting drugs on an empty stomach is a frequent requirement of Babylonian therapy.

Anatomy and physiognomy

It is striking that most general or theoretical discussions of anatomy in the Babylonian Talmud consist of *beraitot*, i.e. early traditions in Hebrew from Palestine.¹³⁹ As in Greek medicine, Talmudic sources did not indulge in dissection (with one notable exception cited

¹³⁴ cf. *Chicago Assyrian Dictionary* A/2 307

¹³⁵ not following Sokoloff, DJBA 381, 'dust of the sunbeam is called *lā Yom*', which makes little sense.

¹³⁶ See Landsberger, *Fauna*, 123.

¹³⁷ See Herrero, *Thérapeutique*, 50.

¹³⁸ This same passage is cited in Sokoloff, DJBA 77, from Shab. 128a.

¹³⁹ See S. Principe, *Le Conoscenze anatomiche degli Antichi Ebrei, il lessico anatomico e l'immagine dell'uomo nella Mišnah* (Turin, 1993).

below), probably because of the belief that the dead body appears in the world to come in its corporal form while living, and hence any alteration of the body after death would affect the future of the dead spirit. Greek science indulged in human dissection for a brief period in the 3rd century BCE, but afterwards even Galen studied animal rather than human internal anatomy. The results of these taboos against dissection – or at least a reluctance to dissect human bodies – meant that physicians and therapists were left with a rather vague notion of internal human anatomy, with little idea of the function of organs (such as the spleen or pancreas), and totally unaware of other organs, such as the prostate gland or lymph nodes.¹⁴⁰ It is possible that mummification in Egypt provided useful information about internal anatomy, but it is far from clear whether this data was ever transmitted to physicians and scholars.

The following comments, in Aramaic, were likely to have originated in Babylonia.

Rabbah (died 330 CE) complains about R. Hisda's lectures on anatomy, rather than being on Torah.¹⁴¹ The lectures explained that one should not force defecation, since the rectum (or intestines) sits on three 'teeth', which can be damaged while passing stools (Shab. 82a). There is no Akkadian evidence, so far, for any such notion.

Yeb. 75b records a story about a man climbing a palm tree (*dyql'*) who was injured by a thorn in his testicles, and his (semen) came out (consequently) like a thread of pus (*khwf smwgl'*), but he still bore children. Mar Samuel (later) wrote to Rab about this case, doubting the patrimony of the man's children.¹⁴² The symptom, however, is known already in Akkadian medicine, in a therapeutic text which reads, 'if a man's testicle contains pus'.¹⁴³

As in other technical matters, the Gemara often seeks clarification for Hebrew terminology from Palestine which was not fully understood in Babylonia. A good example of the phenomenon appears in Bech. 38a, in which the Gemara asks what the meaning is of Hebrew '*hryś*', referring to 'eye' in the Mishnah, and R. Papa explains (in Aramaic) *twr' br'*

¹⁴⁰ See G. E. R. Lloyd and N. Sivin, *The Way and the Word* (New Haven and London, 2002), 219f., which explains that Chinese scholars did not perform anatomical dissections before the eleventh century CE, except for one recorded instance in the year 11 CE, and that even bone setting was done by non-physicians. The assumption that dissection was taboo is assumed but never actually stated in the sources, which is similar to the situation in Mesopotamia, where autopsies were never mentioned but also never explicitly prohibited as taboo. For a brief period in the third century BCE, the Alexandrian Greek physicians Herophilus and Erasistratus performed dissections on prisoners supplied by the Ptolemies, but such anatomical investigations were rare in antiquity; see *ibid.*, 98.

¹⁴¹ R. Hisda died in 309 CE, see Strack-Stemberger 96. See also Kalmin, *Sages*, 179, regarding the frequent confusion between the names Rabbah and Raba (Rava), who died in 352 CE (see Strack-Stemberger 99).

¹⁴² See Rosner, *Medicine*, 162.

¹⁴³ Thompson, *Assyrian Medical Texts* 61, 5: 5 (cuneiform only).

d^cn', the outer row of the eye. Another statement in the same context points out that the white of the eye is called the 'fat' of the eye (*trb' d^cyn'*) (Bech. 38b).

Bech. 43b lists characteristics of priests who are disqualified because of deformities, including baldness (which is a disease in antiquity). Furthermore, Bech. 45a, in a predominantly Hebrew text mixed with some Aramaic, lists body characteristics which are similar to physiognomic omnia in Babylonia, e.g. '(if a) man has broad feet like a duck'.

Explanations of changes in human physiology occasionally appear in the Talmud, and they must be viewed as possible indications of scientific thinking at the time. For instance, a comment in Bekh. 7a claims that 'hot (body) vapour' [*hbl'*] in a donkey makes its urine thick,¹⁴⁴ but it is unlikely from the context that such a statement was the product of empirical observation. Another example of such reasoning appears in an Aramaic discussion in Baba Qamma 98a, which explains that deafness is caused by a wound causing blood in the ear. The comment may be related to a cuneiform text referring to blood in the ear (and other organs) as symptom of disease.¹⁴⁵

Finally, although anatomical terminology in the Babylonian Talmud is almost entirely in Hebrew, with Greek loanwords, occasionally one finds an Akkadian loanword in discussions of anatomy, as in Chul. 55b, in which the term *šlpwḥyt*, 'bladder', in a Hebrew context, is related to Aramaic *šlpwḥ* 'bladder', cognate to Akkadian *ellipuhhu* 'bladder'.¹⁴⁶

Perhaps the most famous passage on anatomy in the Talmud concerns dissection, a passage in Hebrew which was cited in the name of Mar Samuel (died 254 CE), indicating that the matter was discussed in Babylonia:¹⁴⁷

'the students of R. Yishmael took the body of a prostitute who was to be burned by the king, they examined her and found 250 bones, and answer is that woman's body has 2 hinges (*syrym*) and 2 doors (*dltwt*).' (Bech 45a).

Since R. Yishmael lived in Palestine at the beginning of the second century CE, this story would have been in circulation in the generation prior to Mar Samuel. The passage does not specifically refer to dissection, but the implication is obvious, and in any case the incident would have taken place in Palestine, rather than in Babylonia. The subject of inquiry was how many bones the human body contains, for which a standard answer was given in Hebrew sources from Palestine. According to Ned. 32b, the body has 248 'limbs' (*'brym*), a tradition which was also known in Babylonian magic bowls.¹⁴⁸ It is not clear,

¹⁴⁴ Sokoloff, DJBA 360, Jastrow, *Dictionary* 330.

¹⁴⁵ The entry occurs in the Babylonian Diagnostic Handbook, see Heeßel, *Diagnostik* No. 17: 25.

¹⁴⁶ See Sokoloff, DJBA II 53, citing a single reference in Ab. Zar. 40b.

¹⁴⁷ See Rosner, *Medicine*, 168.

¹⁴⁸ See S. Shaked, *Jewish Studies Quarterly* 2 (1995), 210, which refers to a demon attacking the female client's 252 limbs. As Shaked explains (n. 70), a woman's body was thought to contain 252 limbs, four more than a man's, citing the discussion in Bech. 45a. Chinese scholars in antiquity assumed

however, from where this observation originates. In neither system were such numbers based upon dissection and empirical evidence.

A similar story of dissection comes from R. Yishmael's circle, but in this case the dissection is ascribed to Cleopatra of Egypt. According to Nid. 30b, R. Yishmael argued that a male was formed by the forty-first day while a female fetus took forty days longer to be formed. R. Yishmael's colleagues retorted with an anecdote that Cleopatra had experimented with her female slaves, by having them impregnated and afterwards killed and dissected to see whether a male and female fetus developed at the same rate. According to this account, both male and female fetuses were developed by day forty-one.¹⁴⁹ This story alludes to a tradition known to Galen and others that Cleopatra was responsible for a work on cosmetics, which included recipes for baldness.¹⁵⁰ The anecdote itself has little relevance to Babylonian medicine, since Akkadian medicine makes no reference to fetal development. Abaye later comments on the matter (cited in the same passage in Nid. 30b) in just two words: *symnyhwn šwyn*, 'their *signs* are equal', meaning that the characteristics (*symn*) of the male and female fetus were the same. Abaye's comment was not based upon dissection or experimentation, but probably resulted from the examination of the discharge resulting from miscarriage, and his conclusion is vague. Like Babylonian omen priests who examined an unusual discharge (Akkadian *izbu*) for its portentous importance, Abaye concludes in a similar way that the 'sign' is the same for both a male and female fetus at their respective stages of development, namely whether they make the mother ritually unclean.¹⁵¹

Another case which probably takes place in Palestine rather than Babylonia appears in Chul. 45b:

R. Levi¹⁵² sitting in bathhouse (*by mswt'*) saw a man shaking his head and commented that his brain (*mwḥyh*) had wasted away, but Abaye commented, (in Hebrew) '*it shows he can't bear children*'.

According to passages in the Hippocratic Corpus and in Aristotle, semen comes from the brain. It seems likely that the Hebrew comment was falsely ascribed to the Babylonian scholar Abaye.

that the human body had 360 or 365 joints, the latter figure being analogous with the length of the solar year; see Lloyd and Sivin 221 and 225.

¹⁴⁹ See Preuss, *Medicine*, 389f. See also Stol, *Birth*, 10, 17-20.

¹⁵⁰ Galen, *Composition of Medicines according to Places*, ed. Kühn XII 403-405; 432-434; 492-493 [reference courtesy Laurence Totelin].

¹⁵¹ See M. J. Geller, apud *Melammu Symposia I*, ed. S. Aro and R. M. Whiting (Helsinki, 2000), 4.

¹⁵² A third generation Palestinian teacher, see Strack-Stemberger 94.

Surgery, wound treatment, and venesection

There is little evidence for surgery in Babylonia, and no evidence for venesection, which had become a standard medical procedure in the Greco-Roman world, as championed by such eminent physicians as Galen himself.¹⁵³ From cuneiform sources, we hear nothing regarding the setting of bones or dressing of wounds, although this does not exclude such activities from medical practices in Babylonia. The sources which we possess, although extensive, are not complete, and it may well be that the surgery and perhaps even venesection were simply not considered to be appropriate subjects for scribal training, and hence no written records or recipes have been found mentioning surgery, since it was considered a hand-craft. We also have no tablets about brickmaking or carpentry.

A survey of the main passages in the Talmud referring to bloodletting notes several common features.¹⁵⁴ First, the Talmud has no specific term for venesection, but mostly uses the Hebrew term *hqyz dm*, suggesting that the procedure originated in Palestine and was imported from there. On other occasions, the Talmud uses a euphemism for bloodletting, namely to 'do the thing', and the use of such expressions suggests a dim view of the procedure. A 'pig' is similarly referred to as 'another thing' rather than by name. Finally, the use of a scalpel and even bloodletting is referred to by an Akkadian term, *parāsu dama*, which actually has the opposite meaning in Akkadian of 'staunching blood'. The conclusion to be drawn from Talmudic evidence is that venesection was foreign to Babylonia and never quite accepted without scepticism or caution; frequently the Talmud preserves warnings about what is to be eaten or not eaten before or after venesection (e.g. Ned. 54b). The low status of the '*wmn*' may be a factor in how venesection was regarded in the Babylonian Talmud. Finally, much of the lore about bloodletting originated in Palestine, in a Greco-Roman cultural milieu, such as the statement in Hebrew in Ket. 77b, that one who was bled (*hqyz dm*) and afterwards had sex will have weak children or children with the skin-disease *ra'tan*. The passage shows the suspicion or at least caution surrounding the procedure, and observations about bloodletting subscribed to the casuistic logic of Akkadian omens, which ascribe cause and effect according to principles such as *post hoc ergo propter hoc*.

Gynaecology

A Hebrew passage in Keth. 10b describes a test for pregnancy in Palestine carried out by R. Gamliel, in which two girls were made to sit over casks of wine. One of the two girls was not a virgin, which could be established by the fact that, with the non-virgin, the smell went

¹⁵³ See J. Bauer, *Geschichte der Aderlässe* (Munich, 1966) and P. Brain, *Galen on Bloodletting* (Cambridge, 1986).

¹⁵⁴ See M. J. Geller, 'Bloodletting in Babylonia' (forthcoming 2004).

through to her mouth. The story, however, is anecdotal rather than clinical. Similar tests for pregnancy were known in Babylonia.¹⁵⁵ The Aramaic comment (probably from Babylonia) on the passage is significant, since the Gemara asks why the newly married wife was not examined for virginity before marriage. The answer given is that it was heard that this test was anecdotal (*gmr' šmy^c lyh*), but the results could not be substantiated, since it was not considered proper to examine women. It was probably equally true in Babylonia as in Palestine, that women were not examined by men, and men had rather vague or even incorrect ideas about women's anatomy.¹⁵⁶

One example of how much rabbis knew about women and their physiology can be seen in a discussion regarding women's pain during sex. Three Babylonian rabbis comment on the subject (Ket. 39b), although each rabbi cited a woman as his source of information. Abaye (citing his 'mother') says pain is like hot water on a bald head, Raba reports (from R. Hisda's daughter) that the pain is like a puncture wound of a scalpel (*rybd' dkwsylt'*), and Abba Sura's daughter told her father that the pain was 'like hard bread in the jaws'. The point is that rabbis used women as their informants.

Babylonian ideas of gynaecology may be evident in a ruling about a sterile couple, in which each partner blamed the other for sterility (Yeb. 65a, in Aramaic). The woman's testimony was believed because 'she is in a position to know if he shoots like an arrow, but he cannot be in a position to know it'.¹⁵⁷ The supposition was that 'shooting like an arrow' was a necessary prerequisite for insemination. A similar 'problem' appears in an Akkadian medical text, which remarks that 'if a woman's womb receives (< *mahāru*) semen but she does not give birth', it reflects divine anger.¹⁵⁸ The presumption, however, was that the woman was at fault.

A closer parallel with Babylonian 'science' can be seen in a list of 'sex omens', which predict what kind of child a woman will produce, depending upon conditions under which the child was originally conceived. Such sex omens are known from Babylonia, from the cuneiform compendium of terrestrial omens known as Šumma Alu, which also preserves omens derived from human sexual practices.¹⁵⁹ The Talmud omens are preserved in Keth

¹⁵⁵ Cf. E. Reiner, *Zeitschrift für Assyriology* 72 (1982), 124-138.

¹⁵⁶ See T. Meacham and J. Kien, 'Hidden Difficulties in the Sages' Terminology for Women's Bodies', *Koroth* 13 (1998-99), 55-76, showing that despite elaborate discussions of women's bodies, the rabbis had a confused understanding of female anatomy and that rules of ritual purity had little practical use in the health care of women.

¹⁵⁷ The reference might be a euphemism for maintaining an erection.

¹⁵⁸ See M. Stol, *Childbirth*, 5 (BAM 240:69-70).

¹⁵⁹ For Talmudic omens which probably derive from Šumma Alu, cf. M. J. Geller, *Bulletin of the School of Oriental and African Studies* 66 (2003), 240.

60b-61a,¹⁶⁰ and the passage contains many rare words, some of which have Akkadian cognates:

If one has sex in a mill house, they will have *epileptic* children.¹⁶¹

If one has sex on the ground, they will have children with dislocated thighs (*šmwṭy*).¹⁶²

If a woman treads on *blood*¹⁶³ of a donkey, she will have children with scabs (*gyrdny*).

If a woman (during pregnancy) ate mustard (*ḥrdl'*), she will have children who are 'gluttonous' (*złzłny*).¹⁶⁴

If a woman ate 'cress' (*ṭḥly*)¹⁶⁵, she will have 'bleary-eyed' (*dwlṭny*) children.¹⁶⁶

If a woman ate fish brine (*mnyny*)¹⁶⁷, she will have children with small eyes.

If a woman ate a clump of clay (*grgwšt'*), she will have ugly children.

If a woman drank beer, she will have sun-blackened children.

If a woman ate meat and drank wine, she will have healthy children.

If a woman ate eggs she will have *poor* (*ḥnyny*) children.

If a woman ate fish (*kwwr'*)¹⁶⁸, she will have graceful children.

If a woman ate parsley (*krps'*), she will have beautiful children.

If a woman ate coriander (*kwspbrt'*)¹⁶⁹, she will have fleshy children.

If a woman ate citron (*trwg'*), she will have (good)-smelling children (*ryḥny*).

On *a priori* grounds, any list in the Talmud with an apodosis-protasis format ('if ... then...') is reminiscent of Akkadian scientific literature (which includes omens). Although the individual details of the Aramaic text cannot be found in Akkadian, nevertheless the general format of the text and the subject matter suggest Akkadian influence.

Relevant to childbirth are traditions in the Talmud, preserved in Hebrew, of either seven or nine month pregnancies (Yeb. 42a, Yoma 75a *beraita*, Shab. 135a). Similar ideas appear in Akkadian medical literature.¹⁷⁰

¹⁶⁰ The list of omens is appended to advice about what foods a nursing woman should avoid.

¹⁶¹ Aramaic *nkpy*, see Jastrow, *Dictionary* 658 and Sokoloff, DJBA 751, without further evidence for the meaning of the word. There are two similar Akkadian terms, *nakpu* and *nikpu*, both describing some feature of body, but both are of uncertain meaning, see *Chicago Assyrian Dictionary* N/1 158 and N/2 231.

¹⁶² Sokoloff, DJBA II 55. See M. Stol, *Birth in Babylonia and the Bible* (Groningen 2000), 207, citing Šumma Alu omens that if a man has sex (with his wife) on waste ground, his wife will bear girls, but if in the middle of a field or garden, she will have boys.

¹⁶³ The reading *rm'* is uncertain and has been emended to *dm'*.

¹⁶⁴ Jastrow, *Dictionary* 401 and Sokoloff DJBA 414.

¹⁶⁵ = Akkadian *sahlû*.

¹⁶⁶ Jastrow, *Dictionary* 286 and Sokoloff, DJBA 332, and cf. Akkadian *dalpu*, 'weary-eyed', *Chicago Assyrian Dictionary* D 52.

¹⁶⁷ = Akkadian *mê nuni*.

¹⁶⁸ See Sokoloff, DJBA 556, noting the Akkadian term *kamāru*.

An Aramaic comment in Yeb. 71b probably goes back to Akkadian prototypes. The text claims that a baby is sustained in first seven days by 'heat' ('yšt'), either his own heat or his mother's heat ('yšt' d'ymyh). This only applies to child who does not cry, but a baby who cries (when born) will survive. Similar notions can be found in the Diagnostic Handbook Tablet 40, which deals with symptoms of illness in babies, including newborn infants.¹⁷¹

Nid. 66a mentions the use of a lead tube with its edge bent upwards to examine a woman's uterus, which Rosner suggests might be a speculum,¹⁷² but it is also possible that the instrument mentioned here is the type of bronze tube used in Akkadian medicine, which was inserted into the urethra in order to blow *materia medica* into the relevant organs to treat 'kidney disease'.¹⁷³

Finally, attention was also paid to contraception. The wife of R. Hiyya drank a drug of sterility ('šty' sm' d^cqrt') in order to stop having children (Yeb. 65b), and a contraceptive device known as a *mwk* was inserted by women to avoid having children.

Conclusion

The present survey does not exhaust every item in the Talmud dealing with medicine, nor does it begin to study each of the passages cited adequately, to investigate many interesting and important details. Each reference in the Babylonian Talmud requires further philological scrutiny, in comparison with manuscript variants, and traditional translations have to be reconsidered in a large number of instances.

Nevertheless, even a superficial overview of the material attests to its richness. We are not dealing here with all of Talmudic medicine, since medical lore originating in Greco-Roman Palestine merits an independent survey. The present study is searching for connections between Talmudic Aramaic medicine and Akkadian medicine, to establish how much information may have been derived from cuneiform sources.

The preliminary results are encouraging. Scholars such as Abaye appear to have had a fairly good grasp of remedies and recipes strikingly similar to Akkadian medical texts, which may still have been legible during Abaye's lifetime. The Akkadian influences may also indicate the limits of Hellenisation, in the sense that neither Greek science in general nor medicine penetrated into Parthian Babylonia, since Talmudic medicine, preserved in Aramaic, appears to derive from local traditions, rather than from Greek medicine. Medicine

¹⁶⁹ Jastrow, *Dictionary* 623, and Sokoloff, DJBA 564, noting the Akkadian cognate *kusbirritu*.

¹⁷⁰ See Stöl, *Birth*, 20 ff.

¹⁷¹ See Labat, *Traité akkadien*, 216-231.

¹⁷² Rosner, *Medicine*, 164.

¹⁷³ See Geller and Cohen, *Kidney International* 47 (1995), 1813.

in the Babylonian Talmud appears to be a legitimate descendant of ancient and venerable Babylonian medical knowledge. Fuller studies of medicine in Rabbinic texts, with references to contemporary systems of medicine, await scholarly attention.

There are several new results which have emerged from the present study which were not anticipated. The first is the prominence of Abaye in medical (and magical) matters, since he is the most commonly cited authority on the subject, and it may be no coincidence that his statements – attributed to his 'mother' – contain the most parallels with Akkadian medicine. The possibility must be entertained that Abaye himself had some access to local Babylonian medical knowledge, although just how and through whom is difficult to ascertain.

Abaye's floruit (c. 280-339 CE) raise other questions about the survival of Akkadian medical knowledge to such a late date in Babylonia.¹⁷⁴ The chronological spread of local medical lore in the Babylonian Talmud is surprisingly limited. The main traditions quoted occur during the time of Mar Samuel and Abaye's disciple, R. Papa (died 375 CE), although the latter scholar added little new to Talmudic medical lore.¹⁷⁵ Already during his lifetime, Abaye's colleague Raba complained that R. Hisda was wasting time lecturing about medicine rather than Torah. Hence, medical recipes in Talmud were discussed in detail for approximately a century, between 240-340 CE. The few comments come from later rabbis indicate that discussion of medicine in Babylonian Talmud more or less dried up by the mid-fourth century CE.¹⁷⁶

The question is whether rabbis such as Abaye may have acquired medical knowledge from Sassanian scholars, since they live under Sassanian rule. There is no easy answer to this question, since Sassanian medicine is so poorly attested for the third and fourth centuries CE. One Sassanian medical treatise which does survive, attributed to the priest-physician Zādsparam, was influenced by Galen and Greek medicine; this is hardly surprising, since Zādsparam lived in the ninth century CE.¹⁷⁷ On the other hand, the complete lack of Persian loanwords or ideas in the Talmudic medical passages cited above does not argue in favour of Sassanian influence on Talmudic medicine. The parallels with Akkadian medicine are the most noticeable aspect of 'outside' influence on Talmudic scholars dealing with medicine.

¹⁷⁴ See most recently J. S. Cooper, in *Comparative Studies in Society and History* 45 (2003), 450-456, on the survival of cuneiform script.

¹⁷⁵ Some medical traditions are attributed to Abaye's contemporary Raba (died 352), as in Ab. Zar. 28b.

¹⁷⁶ Ab. Zar. 28a records two recipes ascribed to R. Acha bar Raba, who died in 419 CE, and Mar bar Raba Ashi, who flourished 458-468 CE, but these exceptions do not alter the picture very much. The recipes cited refer back to an earlier episode when R. Yohanan consulted a female healer (Ab. Zar. 28a), and the recipes ascribed to her simply consisted of olive oil and salt in water, or goose fat applied with a feather.

¹⁷⁷ Peter Sohn, *Die Medizin des Zādsparam, Anatomie, Physiologie und Psychologie in den Wizīdagihā ī Zādsparam, einer zoroastrisch-mittelpersischen Anthologie aus dem frühislamischen Iran des neunten Jahrhunderts* (Wiesbaden, 1996).

Finally, this leads to the question of what happened after the mid-fourth century and why medical information is rarely discussed. The loss of cuneiform script in contemporary Sassanian Babylonia had a much greater cultural impact than has been previously recognised, since the closure of the Babylonian temples and end of the Babylonian priesthood meant that access to Babylonian 'sciences' (astronomy, mathematics, omens, magic and medicine) was no longer possible. A similar argument can probably be made for Egypt, at about this time. The result is that other means had to be found for solving immediate problems of healing and therapy, without relying upon technical knowledge which had previously been available. The situation only changed in Babylonia during the later Geonic or Byzantine periods, when Greek science began to be introduced through translations in Syriac, Arabic, and Hebrew.

What happened during the intervening era? It may not be entirely coincidental that suddenly the practice of writing incantations on ceramic 'magic bowls' began to appear in Babylonia, between the fourth to seventh centuries CE. Although magic itself was not new, the practice of writing incantations on ceramic bowls, which were buried upside-down in private houses, only appears and mysteriously ends during these few centuries. One wonders if the practice of using magic bowls may have become popular once the Akkadian language and cuneiform script was lost, with the great mass of technical knowledge no longer available. With the ensuing intellectual vacuum, other means had to be found to offer therapy and healing.

PART II: DECONSTRUCTING TALMUDIC MAGIC

One of the important desiderata in field of magic in the Classical world is a comprehensive study of magic in the Babylonian Talmud, which was last surveyed by Ludwig Blau in 1898.¹⁷⁸ Although remarkable for its time, Blau's work is by modern standards virtually obsolete and only marginally useful. The problem is one of methodology. One cannot simply collect the accounts and anecdotes relating to magic in the Babylonian Talmud (and various *midrashim*) without careful source-critical analyses, taking into consideration the manner of composition of Rabbinic texts. At the same time, there is a rich literature of contemporary magical texts such as Greek papyri, Aramaic magic bowls, and even Akkadian tablets, all of which bear comparison with magic in Rabbinic sources.

Even if one restricts his purview to the Babylonian Talmud, the problems associated with an analysis of passages dealing with magic are complex and daunting. Little is known about the redaction of this immense work, assume to have been edited in c. 500 CE,¹⁷⁹ containing traditions from both Palestine and Babylonia. Furthermore, little is known about the dating of individual traditions in the Talmud, since many statements ascribed to a particular rabbi can now be shown to be pseudepigraphic.¹⁸⁰ Finally, it is widely understood that the Talmud consists of discussions of Jewish law and custom (*halachah*) and homiletics (*aggadah*), usually assuming that the social context and *Sitz im Leben* of Palestine versus Babylonia is mostly irrelevant to the themes being discussed; Judaism was Judaism, in both Palestine and Babylonia.¹⁸¹

It is this last assumption which the present study wishes to challenge. Magic (and therapy in general) differed greatly between the Graeco-Roman world of ancient Palestine and Parthian Babylonia, in the same way that few details in common can be seen between Greek magical papyri and Aramaic magic bowls from Mesopotamia. This is not surprising, since the linguistic setting in Palestine and Babylonia was quite diverse.

¹⁷⁸ L. Blau, *Altjüdische Zauberwesen*, Budapest, 1898. See also D. Sperber, *Magic and Folklore in Rabbinic Literature*, Ramat Gan, 1994, which discusses isolated Rabbinic passages pertaining to magic, but is not intended to replace Blau's work.

¹⁷⁹ See D. M. Goodblatt, *Rabbinic Instruction in Sasanian Babylonia*, Leiden 1975, 16-43, in which he gives the evidence from later 9th century Geonic sources about the redaction of the Babylonian Talmud, although Goodblatt argues convincingly that these Geonic sources are historically unreliable. See also Jacob Neusner, *The Formation of the Babylonian Talmud*, Leiden, 1970, 6-10 and 18-19.

¹⁸⁰ Louis Jacobs, *Structure and Form in the Babylonian Talmud*, Cambridge, 1991, 6-17.

¹⁸¹ See, for convenience, A. Cohen, *Everyman's Talmud*, New York, 1995, li-lv. The recent article by P. Schäfer, 'Magic and Religion in Ancient Judaism', in *Envisioning Magic, a Princeton Seminar and Symposium*, ed. P. Schäfer and H. G. Kippenberg, Leiden, 1997, 19-43, does not deal with Rabbinic magic from Babylonia but restricts its view to Palestine; see especially pp. 33-37.

Furthermore, the languages and secular literature of Palestine and Babylonia were distinctive. While Jews in the Hellenistic world produced an impressive literature in Greek on Jewish philosophy and history, including a Greek translation of the Bible¹⁸², nothing comparable can be shown to have existed among Jews in the Parthian world, nor can it be shown that any rabbi in Babylonia spoke Greek or read Greek literature. Babylonia inherited an impressive classical literature of its own in Sumerian and Akkadian, and possibly in Aramaic as well, and it is likely that this literature provided the basis for secular knowledge among rabbis in Babylonia.¹⁸³

In considering the following selections of passages about magic from the Babylonian Talmud, we will attempt to distinguish between sources originating in Palestine or Babylonia.¹⁸⁴ The assumption will be that Hellenistic influence or parallels in Greek texts may be found in passages from Palestine, which will not be detectable in Aramaic passages from Babylonia. Conversely, we can expect to find parallels with Akkadian magic within Aramaic passages originating in Babylonia, but we do not expect to find Akkadian loanwords in texts from Palestine. The parallels between Akkadian and Aramaic magical texts are considered here to be based upon actual borrowings from Akkadian into Aramaic while the former language was still being used (at least read, if not spoken). This

¹⁸² John M.G. Barclay, *Jews in the Mediterranean Diaspora*, Edinburgh, 1996, particularly 125-228, summarising works in Greek written by Jewish writers in Egypt on Jewish or biblical themes. Barclay notes, correctly in our view, that this literature casts doubt on the assumption of a 'unitary or univocal Judaism', and that Diaspora Jews adhered to diverse cultural identities (*ibid.*, 8). This idea is particularly valid in comparing the Jewish Diaspora in the Greco-Roman world with that of Babylonia, which has no corresponding Jewish literature in Greek. Furthermore, since much of the Greek-Jewish literature which existed was preserved in Eusebius and in Patristic sources, it is unlikely that a corresponding Greek literature from Babylonia would have escaped the attention of the Church Fathers.

¹⁸³ M. J. Geller, 'The Survival of Babylonian Wissenschaft in Later Tradition', *Melammu Symposia I*, ed. S. Aro and R. M. Whiting, Helsinki, 2000, 1-6. Cohen, *Everyman's Talmud*, xlix, repeats the view usually held that although Rabbinic academies in Palestine and Babylonia 'carried on their researches independently, although Rabbis passed to and fro between the countries' and exchanged views. This assumption cannot be supported by data from the sources, since relatively few rabbis over the many centuries made the arduous journey from Palestine to Babylonia or vice versa, and those few rabbis who made the journey usually did so only once.

¹⁸⁴ It will be a working hypothesis in the present study that passages in the Babylonian Talmud in Hebrew are more likely to reflect traditions from Palestine than from Babylonia. This argument is not based upon *a priori* grounds alone, since it can be partially substantiated with reference to the name of the rabbi to whom a saying has been ascribed. Nevertheless, occasionally Babylonian rabbis make statements in Hebrew, without any reason given. Were such cases simply quotations of earlier traditions from Palestine, the original source of which had been forgotten? Furthermore, even statements in Aramaic could have originated in Palestine, where Aramaic was also the common language, although representing a different dialect than the Aramaic known from Babylonia. These differences are occasionally obscured by manuscript variants or corruptions in the text, but no systematic study of the Aramaic dialects within the Babylonian Talmud has been attempted.

assumption is based on evidence that Akkadian survived among learned priests at least until the third century CE, and maybe longer.¹⁸⁵

Tales of magic-working from Palestine

One of the main differences between magic traditions in Palestine and Babylonia concerns the type of person who performed the magic. The figure of the holy man or miracle worker appears frequently in the West but is totally lacking in magical texts from Babylonia.

Peter Brown has effectively catalogued the careers of Christian holy men in late antiquity, particularly in Syria, Palestine, and Egypt, whose influence extended to healing.¹⁸⁶ The paradigm, of course, for healing miracles goes back to the New Testament itself, with its many accounts of miraculous healing which can also be used as models. The phenomenon is also reflected in late magical spells from Egypt. In one charm, which has a Coptic parallel text, the spell consists of an adjuration on the part of the magician to compel the god Marmaraoth to do his bidding. The magician, however, identifies himself as the god 'Harmonares, who sits on Mt. Sinai', and he then relates an historiola about his own *katabasis* or descent to the netherworld.¹⁸⁷ The role of the magician as god may represent an extension of the common belief in the holy man as miracle-worker/exorcist, who had personal authority and power over the supernatural world or divine world. This type of story can be found in the Babylonian Talmud, but always reporting anecdotes originating from Palestine, as in the following account of a delegation sent to Rome to meet Caesar, lead by R. Simeon [N.B. *italics* indicate Hebrew text, while Roman script indicates Aramaic]:

Then Ben Tmalion (the demon) came to meet him (R. Simeon). (The demon said): Is it your wish that I come with you? R. Simeon wept and said: 'An angel appeared to the handmaid of my father's house three times, but as for me—not even once. But vanity originates everywhere'. (Ben Tmalion) went ahead and entered into the Emperor's daughter. When (R. Simeon) arrived there, he said: 'Ben Temalion—go out, Ben Temalion—go out!', and as he called out to him, (the demon) left (her) and departed. (The Emperor) said to them: 'Request whatever you want'. They were brought into the treasure house to take whatever they chose. They found that letter (of decree banning Jewish practices), took it and tore it to pieces. It was with reference to this visit that R. Eleazar son of R. Jose related: 'I saw (the letter) in the city of Rome and several drops of blood were on it'.

b. Me'ilah 17b

¹⁸⁵ See M. J. Geller, 'The Last Wedge', *Zeitschrift für Assyriologie* 87, (1997), 43-95.

¹⁸⁶ P. Brown, 'The Rise and Function of the Holy Man in Late Antiquity', *Journal of Roman Studies* 61, 1971, 80-101.

¹⁸⁷ See W. M. Brashear and A. Bulow-Jacobsen, *Magica Varia*, Brussels, 1991, 16-62.

The passage is composed of a mixture of Hebrew and Aramaic, although there is no doubt from the context that the story is Palestinian. The situation described is a delegation to Rome to annul a decree forbidding Jews to observe the Sabbath or the laws of circumcision or family purity. En route to Rome the demon Ben Tmalion offered to accompany the delegation, which was reluctantly accepted, but when the demon possessed Caesar's daughter, Rabbi Simon exorcised him and gained Caesar's favour. The authority of the rabbi as holy man is sufficient to cause the demon to be exorcised, without recourse to recitations of incantations or exorcistic rituals. A similar story can be found in Josephus Antiquities VIII ii, 5, in which a certain Eleazar performed an incantation in front of Vespasian and cured a man possessed by a demon. In this case, Eleazar drew the demon out with an aromatic seal ring, the smell of which drew the demon out of the victim's nostrils. The simplicity of such an act, ascribed by Josephus to God instructing men in the art of expelling demons, is similar to the case of Ben Tmalion's removal by the command of R. Simon.

Parallels between this type of exorcism and similar New Testament exorcisms have been pointed out elsewhere¹⁸⁸, but the salient point is that this type of exorcism is unknown from ancient Babylonia. First, there is no dialogue in Akkadian texts between the magician and the demon, or accounts in which the demon is addressed by name and instructed to get out. Second, the entire phenomenon of demonic possession is not well attested in Akkadian incantations, as already noted by M. Stol.¹⁸⁹ The occasional references to demons inhabiting the body of the patient¹⁹⁰ is relatively rare in Akkadian incantations, but the accompanying folklore is also completely absent; no Babylonian demon inhabits his victim's body and speaks through his mouth. The theme of demon possession, in fact, is also not found in Babylonian Jewish Aramaic magic bowls, nor does it ever occur with Babylonian rabbis in the Talmud. Demonic possession is a feature of magic which appears to be peculiar to the Rabbinic legends from Palestine, in common with Christian traditions. We shall return to this discussion below.

A somewhat comparable story of a holy man performing miracles (or magic) refers to the formidable R. Eliezer b. Hyrcanus speaking with R. Akiba:

¹⁸⁸ M. J. Geller, *Journal of Jewish Studies* 28, 1977, 141ff., referring to Matt. 26: 53.

¹⁸⁹ M. Stol, *Epilepsy in Babylonia*, Groningen, 1993, 51-53.

¹⁹⁰ See, for example, Stefan M. Maul, *Zukunftsbewältigung*, Mainz am Rhein, 1994, 274: 42'-43', 'ihr seid vertrieben aus meinem Körper', and 319: 54, *us-hi hul ur.gi7 šá zu-um-ri-ia*, 'reisse das von dem Hunde (ausgehende) Unheil aus meinem Körper heraus!' (Maul). Another example of the demon being asked to depart from the victim's body occurs in W. R. Mayer, 'Ein Ritual gegen Feindschaft im Museo Nazionale d'Arte Orientale zu Rom', *Orientalia* 59, 1990, 14-33, although the language used does not prove demonic possession. In both of these instances demons cause illness, which is located within the patient's body, and it is the ill effect of the demon which is being ordered to depart from the patient's body. In Mesopotamian magic, on the contrary, demons always seize the victim (*šabātu* or *ahāzu*), but they do not inhabit the patient's body or speak through the patient's mouth, as is the case with demonic possession.

Once he (R. Akiba) and I (R. Eliezer) were walking together on a road, when he said to me, "Master, teach me about the planting of cucumbers". I said something, and the entire field was filled with cucumbers. Then he said, "Master, you have taught me how to plant them, now teach me how to pick them". I said something and all (the cucumbers) gathered in one place'.

b. Sanhedrin 68a

Here is a first-person recollection of magic performed by the Palestinian R. Eliezer, recorded in Hebrew. There is no parallel to this type of magic ascribed to any Babylonian teacher, although similar such stories are found in the Babylonian Talmud regarding famous Palestinian rabbis who were regarded as holy men. Another well-known example is that of Honi the Circle Drawer who caused rain to fall during a drought, again recorded in Hebrew:

Once the greater part of the month Adar had gone by and no rain had fallen. They wrote to Honi the Circle Drawer, 'Pray that rain may fall'. He prayed but no rain fell. He thereupon drew a circle and stood within it in the same way that Habakuk the prophet had done, He exclaimed, 'Master of the Universe, Your children have turned to me because I am like a member of Your household. I swear by Your great name that I will not move from here until You have mercy upon Your children!' Rain began to drip and his disciples said to him, 'Master, we look to you so that we shouldn't die; we believe that this rain came down merely to release (you) from your oath'. He said (to them): 'I did not ask for this, but for rain (to fill) cisterns, ditches and caves'. (The rain then) came down with force, every drop being (big enough) to fill the opening of a barrel...

b. Ta'anit 23a

This same Honi was said to have slept for 70 years, although his methods of rain-making did not meet with universal approval, seeing that Shimon b. Shetah, the foremost Rabbinic authority of the day, threatened Honi with excommunication because of his rainmaking activities.¹⁹¹ Nevertheless, there is no doubt that in the popular mind Honi was a 'holy man' who could perform miracles, which he succeeded in doing.¹⁹²

Tales of magic from Babylonia

As has been mentioned earlier, no Babylonian rabbi is credited with working miracles in the way described above for their Palestinian counterparts.¹⁹³ It is unlikely to be coincidence

¹⁹¹ See b. Berachot 19a.

¹⁹² It may be tempting to relate Honi's 'circle-making' to the Babylonian magical ritual of making a magic circle of flour, or *zissurrû*, around a patient's bed, but the Akkadian use of the magic circle is never attested for other kinds of magic except for defensive protection against demons; see *Chicago Assyrian Dictionary* Z 137f..

¹⁹³ See J. Neusner, *History of the Jews of Babylonia*, V, Leiden, 1970, 195, 'what is striking ... is the absence of the attribution to rabbis themselves of supernatural powers of healing', although he confuses the issue in a previous volume, *ibid.*, IV. 353f. There Neusner argues that the rabbis acquired knowledge

that tales of wonder-working exorcists also do not appear in Mesopotamian magic, which is anonymous and primarily technical. The exorcist (*āšīpu*) treats his patient through an elaborate *technē* consisting of observation, prognosis, recited incantations, and rituals, with considerable variation between types of complex treatments. There is no record of a Babylonian 'holy man' who treats patients charismatically while circumventing these rituals, nor would the incantation priest usurp the role of the gods in healing the patient. The reputation of the Babylonian practitioner rests upon the patient's confidence that the *āšīpu* possesses the correct recipe prescribed by the gods Ea and Marduk or alternatively the goddess Gula, but the exorcist's own role is to *facilitate* healing and not to heal the patient himself.

This attitude can also be found among rabbis in the Babylonian Talmud, from the third century CE and following. One of the important Rabbinic authorities on healing was R. Abaye, who often claims to have received his esoteric knowledge of healing from his mother.¹⁹⁴ Abaye, in fact, sums up the Babylonian attitude towards magic rather succinctly:

Abaye said: The (magician) who is particular about paraphernalia (deals with a) demon (*šd*); he who is not particular about paraphernalia (deals with) witchcraft (*kšpym*).

b. Sanhedrin 67b

This statement requires elaboration: one who is 'concerns himself with paraphernalia'¹⁹⁵ employs the *technē* of magic against demons, following the proper procedure of incantations and rituals. The alternative to using such methods, namely charismatic magic, is tantamount to witchcraft (*kšpym*), which is normally condemned as black magic. The point is that the Babylonian Talmud follows the usual rules of Babylonian magic, which is administered through rituals and incantations rather than through any cult of personality of a healer or miracle-worker, which was characteristic of magic from Palestine (and the Greco-Roman world in general). In Babylonia, both in Akkadian and Talmudic sources, a healer is 'particular about paraphernalia'.

of magic, divination, and dream interpretation in their capacity as lawgivers and not as 'magicians', but we would suggest that these activities simply comprised the ancient 'sciences' of the day. The crucial difference is that Babylonian rabbis operated within the rules and techniques of these 'sciences', but they did not rely upon miracles, as was reported about rabbis from Palestine.

¹⁹⁴ Since another tradition has it that Abaye had been orphaned, the reference may be to Abaye's stepmother, although in either case the significant point is that Abaye ascribed his knowledge of healing to a woman. See above, p. 8.

¹⁹⁵ The Aramaic word *m'n* refers either to vessels, utensils, instruments, or even clothing, see M. Jastrow, *Dictionary of the Targumim, the Talmud Babli and Yerushalmi and the Midrashic Literature*, New York, 1950, 723 and 1398 [hereafter Jastrow, *Dictionary*], and M. Sokoloff, *A Dictionary of Jewish Palestinian Aramaic of the Byzantine Period*, Ramat Gan, 1990, 288, indicating that the word for utensils includes those made of metal, clay or wood.

Another type of magic referred to in this same passage in the Talmud concerns *creatio ex nihilo*, which one could assume on *a priori* grounds to be more in line with Palestinian traditions than those from Babylonia. In fact, two such observations regarding *creatio ex nihilo* are quoted together in b. Sanhedrin 65b, in Aramaic, and the second story is repeated again (this time in Hebrew, ascribed to Abaye) in b. Sanhedrin 67b. Both stories refer to events in Palestine:

Raba created a man and sent it to R. Zera, (who) was conversing with it, but it did not answer (R. Zera). (R. Zera) said to it: 'You are (created) by charmers (*ḥbry'*). Return to your dust.'

R. Hanina and R. Oshaia were sitting every Sabbath eve and were occupied with the 'Book of Creation', and (as a result) they created a third-grown calf and ate it.¹⁹⁶

Neither of these accounts is to be taken very seriously. The first story is concise, but it is clear that the attempt to create a man failed.¹⁹⁷ The second case is even more harmless, a sardonic account of two rabbis experimenting with the so-called Book of Creation, without being able to show anything for it. The two rabbis Hanina and Oshaia were both from Sephoris,¹⁹⁸ and this appears to be a rather bemused Babylonian view of attempts at miracle-working in Palestine.

The same passage in b. Sanhedrin 67b offers another chance to evaluate this kind of magic:

¹⁹⁶ In b. Sanhedrin 67b, a rather liberal statement is ascribed to Abaye, stating that even witchcraft is not always to be condemned:

Abaye said: The laws (referring to) witchcraft are like laws (regarding violations) of the Sabbath, some of which (are punishable) by stoning, some (activities) are not liable to punishment although forbidden, while others are entirely permitted. If one actually creates something [*creatio ex nihilo*], he is (punished by) stoning; if he merely creates an illusion [lit. seizes the eye], he is exempt from punishment, although (the act) is forbidden. That which was entirely permitted is (an activity) such as that of R. Hanina and R. Oshaia, who were occupied every Sabbath eve with the Laws of Creation, and (as a result) they created a third-grown calf and ate it.

The passage is in Hebrew, which makes it open to question whether it is correctly ascribed to Abaye, a Babylonian rabbi, particularly since the two rabbis mentioned lived in Palestine. Furthermore, the passage as a whole makes little, since the last clause actually contradicts the earlier statement that *creatio ex nihilo* was forbidden. The last clause was probably added by editors in order to accommodate the tradition that the rabbis Hanina and Oshaia were known to have had an interest in *creatio ex nihilo*. It is likely, in our view, that the story originated in Palestine, in Hebrew, and was translated into Aramaic and pseudepigraphically ascribed to Abaye, an authority on magic.

¹⁹⁷ It is not certain which R. Zera is being referred to here, since there were at least two rabbis by that name, both of whom resided in Palestine. See H. L. Strack and G. Stemberger, *Einleitung in Talmud und Midrasch*, Munich, 1982, 95.

¹⁹⁸ See *ibid.*, 89.

Rab said to R. Hiyya: 'I personally saw an Arab take a sword and cut up a camel; then he rang a bell and (the camel) arose.' He replied, 'After that, was there any blood or dung? If not, it was merely an illusion [lit. seizing the eyes].'

In this example, any case to be made for supernatural magic is simply discarded as 'seizing the eyes', i.e. illusion or trickery, reflecting Babylonian skepticism regarding such matters, in contrast with stories from Palestine of R. Eliezer magically harvesting a field of cucumbers, which was cited as fact. So far, the picture is consistent, that miracle working was accepted in Palestine but viewed critically in Babylonia.

Babylonian Talmudic and Akkadian Magic

One cannot expect major genres of Akkadian magic to be represented in the Talmud, because of the nature of the sources and their complex manner of transmission. For one thing, the Akkadian tablets may still have been available for study in the late Parthian period, but it is unlikely that texts were still being composed at the time. Hence, the composition of Akkadian incantations and magical texts had probably ceased at the very time when Babylonian rabbis may have been speculating about magic and other ancient sciences. Furthermore, the Talmud is not a record of the ancient curriculum of Rabbinic schools, nor does it provide a consistent picture of everyday life, but matters such as magic and medicine were cited when relevant to particular halachic contexts, such as laws of Shabbat, menstruation, circumcision, purification, and so forth.

Nevertheless, magic in the Babylonian Talmud in Aramaic can hark back to Akkadian prototypes, although in a somewhat garbled and confused form; comparisons must allow for a certain amount of incongruity between Akkadian and Aramaic texts. Furthermore, Babylonian Talmudic Aramaic passages may potentially descend from an independent tradition of Aramaic magic in Babylonia, written on perishable materials that left no trace and which differed from the more durable legacy of cuneiform tablets. Furthermore, cuneiform magic most often reflects a 'library' or reference text of incantations, drawn either from state archives (e.g. Nippur and Kuyunjik), a royal household, or from a *Haus des Beschwörungspriesters* (Assur), but it does not represent the full range of practice of magic for ordinary individuals in everyday life. This might be one explanation why relatively few parallels can be found between Akkadian magic and later Aramaic magic bowls, which provide some indication of the *praxis* of magic in the home or in the street.

For this reason, it would be helpful to try to find examples of Akkadian 'folk magic' which could be represented in Talmudic magic, and here we are in luck. One genre of Akkadian magical texts which could have been applied to everyday use as well as to the royal household is a group of rituals known as Namburbi texts, which are designed to divert the bad portent caused by ominous occurrences. One such omen is the sighting of a snake,

usually in the home, which was considered a bad sign. In Namburbi texts, incantations were often recited in combination with apotropaic rituals designed to ward off the evil effects of the omen.

Likewise, one passage in the Babylonian Talmud reports remedies for the sighting of snakes, although by the time they were recorded in the Talmud the snake omens became confused in two distinctive ways. 1) The apotropaic magic in the Talmud was thought to be used to ward off snakes themselves, rather than the bad portent represented by the sighting of the snake. 2) There was no longer any distinction in the Talmud between incantation and ritual. The Aramaic passage can only be understood properly by being compared with Akkadian Namburbi texts.¹⁹⁹

The Aramaic snake incantations are collected in the Babylonian Talmud, in Shabbat II 0a, and it is significant that the passage is not ascribed to any single Talmudic authority.²⁰⁰ To explain the imagery in these passages, we will compare various Akkadian Namburbi-rituals dealing with snake portents, bearing in mind, however, that there is no one single Akkadian Vorlage for any of the texts from the Talmud:

If a snake wraps around²⁰¹ (someone): let him go down into the water, put a basket over its²⁰² head and force (the snake) away from himself, and when (the snake) goes into (the basket), let him throw (the basket) into the water, ascend and go off.

¹⁹⁹ For another example of a Babylonian Talmudic text with many Akkadian parallels, see M. J. Geller, 'An Akkadian Vademecum in the Babylonian Talmud', in *From Athens to Jerusalem, Medicine in Hellenized Jewish Lore and in Early Christian Literature*, ed. S. Kottke, M. Horstmanshoff, G. Baader, and G. Ferngren, Erasmus, Rotterdam, 2000, 13-32. Of particular relevance is the fact that the medical text, b. Gittin 68b-70a, shows basic misunderstandings of the Akkadian medical literature on which it is based. One such confusion regards *Dreckapotheke* in the Babylonian Talmud. *Dreckapotheke* in Akkadian medical contexts consists of secret names for ordinary plants, or *Decknamen*, and these exotic names are designed from discouraging ordinary people from trying to imitate medical recipes, as established by F. Köcher in *Uruk die Gräber*, ed. R. M. Boehmer et al., Mainz, 1995, 204ff.. In the Gittin text, every reference to *Dreckapotheke* is accompanied by the warning 'beware', since the redactors of the Babylonian Talmud no longer understood that *Dreckapotheke* was really a secret code for ordinary *materia medica*; see Geller, 'Vademecum', 18. For a similar list of *Dreckapotheke* as *Decknamen* from Hellenistic Egypt, see H. D. Betz, *The Greek Magical Papyri in Translation*, Chicago, 1986, 167ff., and J. Scarborough, 'The Pharmacology of Sacred Plants, Herbs, and Roots', in *Magika Hiera*, ed. C. A. Faraone and D. Obbink, New York, 1991, 159-161. See above, n. 125.

²⁰⁰ Similarly, b. Gittin 68b-70a, the extract from a medical handbook, is another example of an anonymous Talmudic text not ascribed to any rabbi as author, see n. 22 above.

²⁰¹ Following the Munich Ms. var. *dtrqyh*. Our translation for Aramaic *trqyh* follows the Soncino edition ('winds itself around a person), rather than Jastrow, *Dictionary*, 557, 'sting, bite', which would be too late for the remedy given in this context. The Soncino translation relies upon the other meanings of *trq* as 'stir, tie, gird' etc., (see Jastrow, *ibid.*), which makes more sense in the present context and also corresponds to descriptions in Akkadian omens of snakes coiling around a man, or being entwined and coiled (Akk. *itgurū* and *ittanagarū*).

²⁰² var. Munich Ms..

If a snake is provoked by someone: if his 'charmer' (*hbr*)²⁰³ is with him, let (the 'charmer') make him ride four cubits. If not, let him jump over a dike. If not, let him cross a river. At night, let him place his bed on four barrels and sleep under the stars. Let him bring four cats and tie them to the four legs of the bed, and let him bring refuse and and throw it there, so that when they hear (its)²⁰⁴ noise they (the cats) will eat (the snake).²⁰⁵

If (a snake) runs after someone, he should run between the *wicker-works*.²⁰⁶

If a woman sees a snake and does not know whether (the snake's) attention was turned to her or not, let her remove her garments and throw them in front of it; if (the snake) winds itself around them, its attention is turned to her; if not, its attention is not turned to her. What is the remedy? She should have sex in front of it.²⁰⁷ (There are those who say, That will strengthen [the snake's] inclination all the more.) Rather²⁰⁸ she should take some of her hair and nails and throw them at (the snake) and say, 'I am urinating'.²⁰⁹

If a snake enters a woman, let her stand with legs apart and place them on two barrels; let fatty meat be brought and cast on the burning coals; let a bowl²¹⁰ of cress be brought and spiced wine. Let them be placed there²¹¹ and be stirred together equally. Let her take a pair of tongs²¹² in her hand, for when it smells the fragrance (the snake) will come out, so that it can be seized and burnt in the fire, as otherwise it will re-enter her.

b. Shab. 11 0a

Notes:

The passage above is divided below into its constituent parts so that each ritual can be discussed separately with its Akkadian parallels:

Ritual No. 1) If a snake wraps around (someone): let him go down into the water, put a basket over its head and force (the snake) away from himself, and when (the snake) goes into (the basket), let him throw (the basket) into the water, ascend and go off.

²⁰³ The Soncino translates 'companion', but this is the same use of the word *hbr* which appeared above in b. Sanhedrin 65b, referring to the dumb magically-created creature being sent back to its 'charmer', and in b. Sanhedrin 67b, discussed below.

²⁰⁴ So Munich Ms..

²⁰⁵ The idea here is that the snake moving through the refuse will make a noise which attracts the cats, who will then devour it.

²⁰⁶ The meaning is not certain; see Jastrow, *Dictionary* 474, although Soncino translates 'he should flee into sandy places'.

²⁰⁷ Soncino interpolates the passage with 'she should cohabit [with her husband] in front of it', which is not in the text.

²⁰⁸ Munich Ms. reads 'if not', meaning 'if that does not work, she should ...'

²⁰⁹ Soncino translates, 'I am menstruous'.

²¹⁰ Aramaic '*gn*', corresponding to Akkadian *agannu*, a large bowl used in ritual texts.

²¹¹ i.e. in the bowl.

²¹² or 'cosmetics', see Jastrow, *Dictionary*, 1260.

This first ritual makes little sense if taken literally as a remedy for being attacked by a python-like snake. On the other hand, the passage makes sense if seen in the light of Akkadian omens and namburbi-texts. In the 'snake-tablet' of terrestrial omens, Šumma Alu, one omen reads, [*šumma*] *muš na i-gi-ir*, 'if a snake coils around a man', or alternatively *šumma ina é na muš.meš ik-tap-pi-lu*, 'if snakes are coiled up on a man's house ...'.²¹³

As for the victim going into the 'water', it is commonplace that namburbi-rituals were performed at the river or even in the river, and offerings were thrown into the river, as well as figurines of the evil sign (e.g. snake), since the river was intended to take away the evil to the Apsû, the netherworld sea.²¹⁴ In several snake-namburbi texts, the ritual reads, *a.meš šú-nu-ti ana muh-hi-šú du-ak*, 'let the water run over (the victim)', which Maul suggests could refer to the river water itself, suggesting that the victim is submerged in the river, as in our text.²¹⁵

One of the frequently recited incantations in the Akkadian namburbi corpus is to the River, which begins *atti nāru banât kalama*, 'you O River, who created everything'.²¹⁶ The purpose of the incantation is to insure that any image of the snake (or another portentous object) will be effectively removed in the depths of the river. An incantation addressing the river can be also found in b. Shabbat 66b, although cited there within a ritual against fever:

Let him take a new pitcher, go to the river and say to it, 'O river, O river, lend me a pitcher of water for a journey which has happened to me.' Let him then turn it seven times about his head, cast it behind his back, and say to it, 'O river, O river, take back the water you gave me, for the journey that happened to me came in its day and left in its day.'

Neither the incantation or ritual cited in the Talmud are particularly relevant to fever and could just as easily have been applied to any evil portent which can be counteracted by this type of sympathetic magic.

The use of a 'basket' in the Aramaic text to trap the snake was unlikely to be effective, for practical reasons, and this is an example of how the Talmud misunderstands the use of a ritual act to counteract an omen. A basket was used in namburbi rituals as an offering vessel,²¹⁷ although more likely here is the comparison with Snake-Namburbi No. 3, in which a gold and silver image of the 'entwined' snakes is to be set downstream in the

²¹³ See *Keilschrifttexte aus Assur religiösen Inhalts* 385 r. 30 and *ibid.* 384:4, and elsewhere, cited *Chicago Assyrian Dictionary* E 41.

²¹⁴ Maul, *Zukunftsbewältigung* 86-87. See also Snake-Namburbi 3 (*ibid.*, 286), which has the ritual taking place at the river, and *ibid.*, 493, in which the ritual takes place at the river together with the recitation of an incantation, and a figurine is thrown into the river.

²¹⁵ *Ibid.*, 285: 3'-4', see 286 n. 15, and see also *ibid.* 283: 4-5 and n. 20.

²¹⁶ *Ibid.*, 86-87.

²¹⁷ see *ibid.*, 99, although not in the context of a snake namburbi.

river.²¹⁸ A figurine of this sort would probably not have been acceptable to the rabbis, although some type of comparable ritual act may have originally be prescribed in the Talmud, in which the 'snake' in the basket is to be released into the river as an act of sympathetic magic. The use of the basket was later transformed in the Talmud to catch the snake itself, which is a nonsense.

Ritual No. 2) If a snake is provoked by someone: if his 'charmer' (*hbr*) is with him, let (the 'charmer') make him ride four cubits. If not, let him jump over a dike. If not, let him cross a river. At night, let him place his bed on four barrels and sleep under the stars. Let him bring four cats and tie them to the four legs of the bed, and let him bring refuse and and throw it there, so that when they hear (its) noise they (the cats) will eat (the snake).

The second snake ritual in Shabbat 11 0a calls for the victim's 'charmer' (*hbr*) to help him avoid the snake by carrying the victim for a short distance, or the victim should jump over a dike or cross a river. Alternatively at night, the victim's bed is to be propped up on barrels and he is to sleep under the stars, and cats are enlisted to protect him against snakes at night.

The snake namburbi's offer further parallels here. One of the standard formulae in namburbi-texts is the expressed wish that the portended evil should 'cross the river and scale the mountain'²¹⁹, i.e. be removed as far away as possible. This oft-repeated phrase may have been re-interpreted in the Aramaic rituals to imply that the victim should remove himself from the snake, by crossing rivers and dikes, etc.. There is no doubt, in any case, that the proper locus for this Talmudic passage is originally Babylonia, as suggested by the topography of rivers (or canals) and dikes.

The reference to the victim sleeping under the stars alludes to another common motif in namburbi-texts, namely that the victim is not to return to his own house, at least temporarily.²²⁰ The actual wording in the Aramaic text, however, probably goes back to a frequently used phrase in namburbi rituals, namely that a ritual vessel filled with purifying water is to be put on the roof of the house, and 'you should set it out (lit. have it spend the night) under the stars', which also occurs frequently in the Akkadian medical corpus.²²¹

The use of cats against snakes appears to have no parallels in namburbi rituals, although in Šumma Alu terrestrial omens the cat kills a snake.²²²

²¹⁸ Ibid., 286: 13', [muš.meš šú]-nu-ti ana íd tu-uš-qa-lap-pa, you send these [snakes] downstream into the river'.

²¹⁹ *libir nāra libbalkit šadā*, see *ibid.*, 91

²²⁰ See *ibid.*, 274: 46' (Snake Namburbi No. 1), *é-šú nu te-he*, et *passim*.

²²¹ *ina kakkabi tušbât*, see *ibid.*, 45. See also E. Reiner, *Astral Magic in Babylonia*, Philadelphia, 1995, 48.

²²² See Hunger, *SBTU I 75:10'*, [*šumma šeru*] *ina bit ili šurānu idūkšu*, [if] a cat kills a [snake] in the temple', and see also Maul, *Zukunftsbewältigung* 496: 22, in which the howling of cats was a bad omen.

Ritual No. 3) I can find no parallels for this statement.

Ritual No. 4) If a woman sees a snake and does not know whether (the snake's) attention was turned to her or not, let her remove her garments and throw them in front of it; if (the snake) winds itself around them, its attention is turned to her; if not, its attention is not turned to her. What is the remedy? She should have sex in front of it. (There are those who say, That will strengthen (the snake's) inclination all the more.) Rather she should take some of her hair and nails and throw them at (the snake) and say, 'I am urinating'.

This ritual, like the following one, concerns the anxiety of being bitten by a snake, rather than the reality of being bitten, since it involves a sexual encounter between a woman and a snake, in rather Freudian terms. Although no exactly parallel idea presents itself within namburbi rituals, nevertheless many of the individual elements can be identified in Akkadian.

The necessity for the victim to strip is known from Snake Namburbi No. 1, which instructs the victim to strip off his garments,²²³ and after being anointed he changes into a clean garment, for purposes of purification or to avoid recognition. In the Talmud this divesting of clothing was interpreted as a means of testing the snake's intent, since it obviously showed excessive interest if the snake coiled around her garment. This situation somewhat resembles a type of snake omen recorded in Snake-Namburbi No. 4, which concerns an evil portent occasioned by a snake seeing a man before the snake itself is seen,²²⁴ an idea similar to the anxiety aroused in the Talmud in which the victim is the sole focus of the snake's attention.

If the woman is, indeed, the object of the snake's gaze, one solution suggested in the Talmud was for her to have sex in its presence, although others objected that this might somehow arouse the snake even further. Once again the namburbis come to the rescue in helping to explain the Talmud. An important aspect of namburbi texts is that the victim must not return home directly after the ritual and must somehow escape from his own identity, to avoid being recognised by the evil portent; to some extent the Talmud passages have this in common, although this notion is interpreted too literally in the Talmud as an attempt to escape from the snake itself, rather than from the evil portent that it represents.

One way that the namburbis advise the victim to alter his identity is to have sex with a strange woman, as in Snake-Namburbi No. 3: 'he should enter another house (i.e. not his own) and spend the night and have sex with a strange woman'.²²⁵ This is probably the

²²³ Ibid., 274: 43', *lú.bi túg-su i-šá-haṭ-ma*, 'that man strips off his garment'.

²²⁴ Ibid., 292: I: *muš ta habrud.da è-ma la-am ma-am-man igi lú igi lú.bi ina šà mu.bi úš*, 'the snake has come out of a hole and spied the man before anyone saw it, that man will die within the year'.

²²⁵ Ibid., 285: 14, restored from 490: 76f.: *ana é šá-nim-ma ku₄-ma i-bat ana munus bar-tim te-he*.

basis for the Talmud instruction for the woman to have sex in front of the snake.²²⁶ The idea of having sex with a stranger is not likely to have been recommended by the rabbis, particularly for a woman, which makes it likely that this type of remedy was later edited into its present form.

The solution provided in the Talmud – that she take some of her hair and nails and cast them at the snake–has partial parallels in namburbi snake texts. Generally in namburbi rituals, hair and nails from the victim were used to put the evil off the track;²²⁷ and in fact in Snake-Namburbi No. 5 the victim's hair is sealed into a jar, although the ritual use is not explained.²²⁸ As Maul explains, the victim's hair and nails were removed or distanced from the victim in order to guide the evil away from its intended goal.

In a similar vein in the Talmud, the victim's hair and nails are used to represent the woman's own person, while she says, 'I am urinating'. The idea in the Talmud is that she will be undesirable to the snake, but this is probably a misinterpretation of the ritual here. Although no exact parallel for this statement can be found, one namburbi ritual concerns the evil which comes from a victim's bed, including one bad omen which says, '[if] a man urinates while [in] his bed – in order that the evil of the *that* bed should not reach the man...'.²²⁹ The idea may be here that the woman claims to be already suffering from the effects of a bad omen (resulting from urinating in an inappropriate place), and hence she does not deserve any additional misfortune from a snake omen. The Talmud, of course, misinterpreted this passage to mean that she is less attractive to the snake as an object of sexual desire.

Ritual No. 5) If a snake enters a woman, let her stand with legs apart and place them on two barrels; let fatty meat be brought and cast on the burning coals; let a bowl of cress be brought and spiced wine. Let them be placed there and be stirred together equally. Let her take a pair of tongs in her hand, for when it smells the fragrance (the snake) will come out, so that it can be seized and burnt in the fire, as otherwise it will re-enter her.

There are several Mesopotamian parallels for the idea of a snake entering the woman's vagina, although nothing of this kind is explicitly stated within namburbi texts. In bilingual *Utukkū lemnūtu* incantations, one demon 'coils a snake into a human womb'.²³⁰ Furthermore, the mythological Akkadian horned snake, *bašmu*, was known in Sumerian as

²²⁶ The Talmud does not stipulate that the woman is to have sex with her husband

²²⁷ See Maul, *Zukunftsbewältigung* 76f.

²²⁸ Ibid. 294:7-8, and see ibid. 76: lú šu-a-ti lú.šu.i-su dù-uš ina dug.la.ha.a[n] i-kam-mis-ma ina im še.in.bubbu ká-šú ú[š], 'the victim shall shave himself, and he will gather (his hair) in a porous jar and he should seal the opening with clay and straw'.

²²⁹ Ibid. 379: 3, [enūma ina] ki.ná-šú kàš-šú iš-ti-nu hul ki.ná x [.. ana na n]u sá.sá.

²³⁰ See Udug Hul XVI: 187, [šà]-tur nam-lú-u₁g-lu muš gú-gilim du₁₁-ga, ina šá-sur ni-ši muš ú-kán-ni-nu = *Cuneiform Texts from Babylonian Tablets in the British Museum* 16 23: 333-334.

the muš.šà.tur or 'womb-snake', so the idea is an old one. Although the namburbi texts lack any specific reference to a snake crawling into a woman's womb, seeing 'copulating snakes'²³¹ in the house was considered portentous and may have suggested the form of the text which is in the Talmud.

Although cress (Akkadian *sahlû*) is well-attested in Akkadian rituals and medical texts, the fact that cress appears in the Talmud (*thly*) but not in the surviving namburbi corpus is insignificant; the mixing of various plants with beer or wine in a bowl was a standard ritual procedure.²³² Wine is attested in a snake-namburbi ritual (No. 8: 23),²³³ as is the ritual use of 'fat meat' (Akkadian *šumû*);²³⁴ the casting of the meat onto coals, as recommended in the Talmud, probably goes back to the burning of aromatics, as in namburbi rituals.²³⁵ The significant point is that the Talmud misunderstands the purposes of this ritual, since the rabbis thought that it was necessary to draw the snake physically out of the woman's womb in order to capture it, rather than to ward off the evil effects of the snake omen.

Witchcraft

The subject of witchcraft is well-developed as a genre in Akkadian incantation literature, but it is not as well-attested in the Hellenistic world. There is no Greek equivalent, for instance, to the lengthy Akkadian magical composition Maqlû, which deals primarily with countering the activities of witches.²³⁶ It is therefore worth noting anti-witchcraft

²³¹ Maul, *Zukunftsbewältigung* 474 f+3, *šerri murtâmî*.

²³² Namburbi rituals tend to use beer rather than wine as the primary mixing agent, since alcohol is a good solvent, and namburbi texts tend to use the *adagurru*-libation jar rather than the *agannu*-bowl (as in the Talmud), but these differences are relatively minor. See *ibid.*, 120ff.

²³³ *ibid.* 302., and for a late namburbi snake ritual, see I. L. Finkel, in *Wisdom, Gods, and Literature*, Festschrift W.G. Lambert, ed. A. R. George and I. L. Finkel, Winona Lake, 2000, 206f..

²³⁴ Maul, *Zukunftsbewältigung*, 120, as part of the offerings to the gods in namburbi-rituals, also used in Snake Namburbi 5 (*ibid.* 294: 12-13): uzu.me.h[é] uzu.ka.ne tu-*taḥ*-[ha], 'you bring fatty derma and roast meat'.

²³⁵ See *ibid.*, 120f.

²³⁶ See C. A. Faraone, *Ancient Greek Love Magic* (Cambridge, Ma, 1999), 101-110, who attempts to find Akkadian parallels to 'spells for inducing affection (*philia*)' in the Greek magical papyri. Some of Faraone's underlying assumptions are undoubtedly correct, namely that these types of genres of magic were widespread throughout the Mediterranean, and that love philtres are a type of aggressive magic which intends to alter the object's behaviour against his/her will, and that these love incantations are comparable with incantations to calm the anger of a ruler or win his favour. Nevertheless, the details of Faraone's comparisons are unconvincing, since the Akkadian incantations which he cites derive from different contexts than the passages adduced from Greek magical papyri. The Akkadian texts are drawn from *egalkurra*-incantations which were designed to win the favour of the ruler at court at the expense of an active rival, or alternatively potency incantations which were intended to assist the male partner's performance. Faraone himself is aware of the methodological conundrum of comparing texts from

observations in Aramaic passages in the Babylonian Talmud, while nothing similar is to be found in the Talmud in Hebrew.

We begin with a brief statement from b. Sanhedrin 67b:

A certain woman was anxious to take the dust from under R. Hanina's feet. He said to her, 'If you succeed, go and practise (magic).

The reference to taking the earth from under someone's feet is an expression denoting witchcraft, and it is a translation of an Akkadian proverbial statement which occurs in a Seleucid manuscript of liver omens,²³⁷ which says, 'for witchcraft, a witch takes the dust from a man's footprint'; this is precisely what is happening in the Talmudic passage, as suggested by R. Hanina's answer to her.²³⁸

Another passage deals with incantations against witches:

Amemar²³⁹ said: The chief of the women sorcerers told me: He who meets sorceresses should say thus: 'Hot dung in torn baskets for your mouths, O witches! may you flee, run away, your unnatural acts have been dispersed, the blast of wind carried off the new saffron which you were grasping, women sorcerers.'

b. Pesachim 11 0a-11 0b

The importance of this passage is that it is one of the few instances of a verbatim textual parallel with an Aramaic incantation bowl. Cyrus Gordon published a bowl from the Istanbul

different millennia and locations (p. 36f.), and he tries to bridge the enormous chronological and geographical gaps by citing isolated examples of Akkadian and Greek versions of similar texts. Nevertheless, even if Faraone's examples seem formally and thematically similar, we are still left with the problem of how to explain the process of transmission of texts from 8th century BC Assyria to 5th century CE Egypt. It may well be that Greeks absorbed literary forms from Mesopotamia, as argued by M. L. West, *The East Face of Helicon*, Oxford, 1997, but the bulk of the material among Greek and Demotic papyri from Egypt shows little influence from Mesopotamia, and conversely little trace from Hellenistic and Roman Egypt appears in Mesopotamia.

²³⁷ *Babylonian Records in the Library of J. Pierpont Morgan* 4 12: 74-75: mí.uš7.zu sahar. hi.a ki-bi-is giṛ lú kiš-pi ti.meš

²³⁸ The motif of a woman trying to bewitch a rabbi is not unique in the Talmud, such as the following:

What is [the reference to] witchcraft? R. Hisda and Rabbah son of R. Huna were going by boat when a certain matron said to them, 'Seat me near you,' but they did not allow her to sit. (So) she said something and bound the boat; they said something and freed it. Said she to them, 'What can I do to you, seeing that you do not cleanse yourselves with a shard, nor kill lice on your clothes, and you do not pull out and eat a vegetable from a bunch which the gardener has tied together'?

b. Shabbat 81b-82a

The story is based on the assumption that certain actions cause one to be liable to witchcraft, probably based upon ominous occurrences which portend evil. Some namburbi rituals were aimed at warding off quite mundane evil signs in the home or garden (see Maul, *Zukunftsbewältigung* 367ff.), although I cannot find these particular items from the Talmud in Akkadian omens.

Museum containing the same incantation formula, addressed to demons, namely 'dung in torn baskets for your mouths, O witches'.²⁴⁰ Such exact parallels between magic bowls and Talmudic magic are unusual, which is also reflected in the fact that the Aramaic dialects of the Talmud and magic bowls are not identical, with rare exception.²⁴¹ It seems clear that the Talmud and magic bowls stemmed from different literary traditions.

Finally, the motif appears in the Talmud of Rabbis having to counter witchcraft with equal measures of harmful magic, as in the following story concerning one Jannai, whose identity is uncertain.²⁴² At first instance, the story appears to be an account of a miracle-worker, comparable to accounts about Palestinian Rabbis as holy men:

Jannai happened upon an inn. He said to them, 'Give me a drink of water,' and they offered him *shatitha* (a Babylonian dish). Seeing the lips (of a woman) moving, he poured out a bit of it, which became scorpions. Then he said to them, 'I drank of yours, now you come and drink of mine.' So he gave her to drink, and she became an ass and he mounted her and went into the market-place. But her 'charmer'²⁴³ came and broke (the spell) for her, and so he was seen riding upon a woman in the market-place.

b. Sanhedrin 67b

The story is based upon the idea of reciprocity, namely Jannai performs against the witch a similar type of spell as that which she sought to cast on him. This notion of reciprocity is a characteristic motif of magic aimed at countering witchcraft and rivals, and particularly the idea that the witch's words 'are turned back into her mouth'.²⁴⁴ However, the humour of the above Talmudic story is obvious, since the story ends with on the comic note that Jannai is seen riding the woman into the market. This story cannot be considered as a comment on Rabbinic miracles or magic, and if anything it reinforces the point that such stories were not taken seriously in the Babylonian view of wonder-working and holy men performing supernatural acts.²⁴⁵

²³⁹ A 4th century Babylonian Amora.

²⁴⁰ C. H. Gordon, *Archiv Orientalni* 6, 1934, 319-334, Bowl C, ll. 3-4.

²⁴¹ See C. Müller-Kessler and T. Kwasman, 'A Unique Talmudic Aramaic Incantation Bowl', *Journal of the American Oriental Society* 120, 2000, 159-165.

²⁴² This is probably not the R. Jannai of Sephoris, since the story is related in Aramaic and mentions the typically Babylonian dish, *shatitha*.

²⁴³ See above, footnote 203.

²⁴⁴ See T. Abusch, *Babylonian Witchcraft Literature* (Atlanta, 1987), 126, and a similar idea is expressed in the same Aramaic magic bowl cited above, n. 63, line 8, which calls for the sorceries directed against the client to be reversed and sent back against those who originally performed and sent them.

²⁴⁵ The same passage in b. Shabbat 67b records another amusing story about a third-century Babylonian scholar:

Ze'iri happened to go to Alexandria in Egypt and bought an ass. When he came (to a river) to give it water to drink, it melted, and there stood before him a landing board (of the boat). The

Conclusion

There are many other stories in the Babylonian Talmud, in both Hebrew and Aramaic, which refer to magic in some way or another. These stories usually describe fears or anxieties which relate to magic, such as fear of the toilet, fear of dogs, or fear of strange women, but these accounts are often more closely related to divination rather than to healing magic and the use of incantations. The same distinctions, however, can be made as in the instances discussed above, namely that there is a difference between in traditions recorded in Hebrew and Aramaic in the Babylonian Talmud, and these differences must be examined in every instance. What emerges from this preliminary study is that Palestinian and Babylonian Rabbis operated within the usual norms of their respective societies, particularly when dealing with questions of magical healing. Furthermore, one notes that Palestine and Babylonia did not always share the same genres of magic, since Palestinian magic relied much more upon the charismatic personality of the healer than did Babylonian magic, which was based upon technique and ritual.

One clear distinction between Palestine and Babylonia in this regard was noted by the Rabbis themselves. One aspect of divination known from the Babylonian Talmud was the fear of even numbers or 'pairs', which was considered to be ominous, so that a person should always drink odd rather than even glasses of wine, and so forth.²⁴⁶ The reason for this fear of 'pairs' comes directly from Babylonian extispicy, which was an elaborate system

(sellers) said to him; 'If you were anyone else but Ze'iri, we would not return (your money); does anyone buy anything here without first testing it by water?

This is a case of magic (or trickery) being performed against R. Ze'iri, who was the innocent victim, and hence nothing can be deduced from this tale about Rabbinic magic.

²⁴⁶See, for instance, the following account:

R. Papa said, Joseph the demon told me: For two we kill; for four we do not kill, (but) for four we cause harm. For two (we cause harm) whether (something is done) unwittingly or deliberately; for four, only if it is deliberate, but not if it is unwitting. And if a man forgot himself and happened to go out, what is remedy for it? Let him take his right-hand thumb in his left hand and his left-hand thumb in his right hand and say thus: 'You (the two thumbs) and I, that makes three! But if he hears someone saying, 'You and I, that makes four!' let him say to him, 'You and I, that makes five!' And if he hears one saying, 'You and I are six,' let him say to him, 'You and I, that makes seven. This (once) was done until a hundred and one, and the demon burst.

b. Pesachim II 0a

The usual assumption is that this passage refers to drinking even and odd cups, consistent with an anonymous rabbinic dictum (a *beraita*) appearing in this context that it is dangerous to drink 'in pairs'. The rabbinic problem was that the Passover Seder requires four cups of wine which violates the rule of even numbers. However, this particular passage ascribed to R. Papa (and Joseph the demon) makes no mention of drinking or eating, but it could refer to any activity repeated at even or odd intervals.

Nevertheless, it is clear from the discussion in the entire passage that this issue was taken more seriously in Babylonia, since the rabbis discussing the issue were from Babylonia rather than Palestine.

in which 'right' and 'left' were used to indicate 'good' or 'bad' respectively, although it depended upon a point of reference, i.e. 'left' is bad for the subject but 'good' if it refers to his enemy. It seems probable that 'left' as unlucky or 'sinister' could refer to an 'even' number if one counts with one hands, starting with the right hand. Nevertheless, whatever the basis for the system might be, the Talmudic statement regarding belief in 'pairs' is clear:

In the West (Palestine) they were not particular about 'pairs'.

b. Pes. 11 0b

This simple statement shows a clear difference between Palestine and Babylonia, and the entire absence of a genre of texts in Palestine, namely a type of divination, which is well represented in Babylonia. This statement is a reminder of how diverse these two societies were regarding their use of ancient 'science', and it also serves to underscore the fundamental social and intellectual divisions within 'Judaism' of the Talmudic period.

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