# Bodies of Texts, Bodies of Tradition – Medical Expertise and Knowledge of the Body among Rabbinic Jews in Late Antiquity

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The study of ancient Jewish knowledge culture(s), while still in its incipient stage, has developed into an emerging subfield, which seems to offer multiple opportunities of entering into a dialogue with different neighboring disciplines, as it has happened during the scholarly gathering from which this paper emerges.[1] In the wake of the cultural turn in the humanities and following the

1 I would like to express my gratitude to the organizers for inviting me to a truly inspiring conference that brought me in September 2016 to Mainz. I also would like to thank the editors of this volume for their hard work and their many efforts required for publishing this volume. Furthermore, I am indebted to Markham J. Geller and Philip van der Eijk for their constant support, as well as to my colleagues with whom I work comparatively on late ancient medical episteme (project A03) within the DFG-funded Collaborative Research Center SFB 980 "Episteme in Motion" at the Freie Universität Berlin. Parts of this paper were (re)written in 2017, the year I spent as a Harry Starr Fellow in Judaica at the Center for Jewish Studies at Harvard University and as a Rothfeld Fellow at the Herbert D. Katz Center for Advanced Judaic Studies at the University of Pennsylvania in Philadelphia, within the program on "Nature between Science and Religion: Jewish Culture and the Natural World". During both fellowships, this paper benefitted equally from the rich holdings of the libraries at both universities, and from inspiring conversations with colleagues from different fields. Several parts of the current chapter were presented and discussed in the Starr-seminar at Harvard, in the Ruth Meltzer-seminar at the Katz Center and at the Katz-symposium "Jews and

impact of Thomas Kuhn's and others' pioneering work, the history of science and knowledge has witnessed some substantial shifts that harbor opportunities to which scholars of ancient Judaism might connect. In general, scholars in the history of science have bid farewell to earlier, teleological narratives of how science (meaning, obviously, modern Western science) emerged, focusing only on progress and inventors often with a strong, evaluative tone. Lorraine Daston has aptly summarized those new approaches after Kuhn as follows:

> Historians of science […] would answer that such scientific practices are both socially constructed and real. That is, they depend on the cultural resources at hand in a given context […] and they capture some aspects of the world; they work. But they are neither inevitable nor metaphysically true. Rather, they are contingent to a certain time and place yet valid for certain purposes.[2]

This new theoretical and methodological openness – also reflected in the appropriation of the history of knowledge by the history of science – has provided new avenues for the study of ancient sciences, including other knowledge cultures, and a broader pool of (textual and material) sources.

First, previous scholarship usually focused on an idealized version of Graeco-Roman science (taken as the cradle of modern Western science) and, if at all, only looked for parallels and influences, without paying attention to the plurality of cultural transfers and endemic developments in antiquity. However, over the past four decades, other, non-Western scientific cultures (such as in the ancient Near East, Egypt, China, etc.) have gained more attention and have been the subject of studies in their own right. These cultures exhibit at times astonishing particularities in their scientific concepts and approaches. Scholars have pointed out that such ancient, non-Western traditions feature various coherent systems of thought in several fields of knowledge (mathematics, medicine, astronomy/astrology), which, though differing tremendously from Graeco-Roman sciences, cannot be seen as inferior to those.[3]

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the Natural World: Bodies, Animals, Evolution". I am grateful to the organizers and participant of these events.

2 DASTON, 2009, p. 813.

3 G.E.R. Lloyd's pioneering work (e.g., LLOYD, 1996; 2007) in comparative science has been a turning point in this regard. Cf. also ROCHBERG, 2010 on his importance for the field as such. ROCHBERG, 2014b; 2016 demonstrates how the ancient Mesopotamian sciences as a system of knowledge that did not share the same concept of 'science' or 'nature' as cherished in Greek and Roman cultures, but de-

Second, recent studies have recognized that knowledge and practices of knowledge-making were not confined to a group of experts, ancient "scientists" so to speak, who produced a small (or, in the case of medicine, even a substantial) body of technical literatures in their respective fields.[4] Moreover, scholars have shown an increasing awareness of the fact that ancient sciences were "profoundly responsive to philosophical and religious ideas and to social and cultural conditions".[5] Consequently, the field of ancient science and knowledge is presently explored from a variety of perspectives and sources, including material artefacts, along with various texts or genres (such as law and philosophy, historiography, poetry, autobiography, etc.) that once were not deemed sufficiently "scientific" due to their primary association with other subjects or fields of expertise (law, religion, theology).[6]

These developments in the "heartland" of ancient science studies may serve as a liberating factor that helps to integrate also the study of Talmudic modes of accumulating, appropriating, and producing knowledge within a larger framework. Furthermore, it enables the following paper to focus on the Jewish-Talmudic discourse associated with medicine, the body and its representations,

veloped other frameworks for their intellectual inquiries, are worthy of being studied on their own terms. For the importance of emic conceptions and the difficulties of translating ancient scientific texts, see IMHAUSEN/POMMERENING, 2010 and 2016.

4 On the broader "web of knowledge" in (Late) Antiquity, see LEHOUX, 2012; 2014; CHIN/VIDAS, 2015. FORMISANO, 2013, observes a surge of the practical sciences (often associated with "crafts") such as mechanics, architecture, agriculture, and landscaping, in Late Antiquity that challenged the superiority of the classical theoretical disciplines (*artes liberales*).

5 SIRAISI, 1995, p. 3. For the entanglement of medicine, science, philosophy, and religion in Graeco-Roman traditions, see VAN DER EIJK, 2005; 2012.

6 For a comprehensive introduction on the range of scientific genres, see TAUB, 2017. Sources that were previously linked to religion and ritual, such as divination texts, incantations, early Christian sermons, exegesis, and commentaries, as well as monastic or even ascetic traditions, are now studied as copious sources for (scientific) knowledge-making. Thus, VAN DER EIJK, 2010, has emphasized the interplay between technical texts, for example, medical compilations (*collectiones/ synagogai*), with other literary genres and discursive forms, including exegesis, commentaries, isagogic introductions, summaries, doxographical collections, and anthologies. For early Christian and rabbinic knowledge of medicine, see the contributions in the special issue by UPSON-SAIA/MARX-WOLF, 2015 and the introduction in MARX-WOLF, 2015. Moreover, scholars also inquire into archeological artefacts and other material aspects of culture that may shed light on practices of epistemologies in the making. Cf. DRAYCOTT/GRAHAM, 2017.

which are not to be found in a distinct genre of medical expert literature.[7] Quite to the contrary, pertaining discussions of medicine and information about therapies and recipes are encapsulated in the quasicanonical or mainstream Talmudic literature that is usually seen as preoccupied with religious law (Halakha) and questions of ritual, ethics, and similar topics. Those traditions were transmitted via a complex multi-layered combination of oral recitation and learning, on the one hand, and written texts, on the other, before being compiled and edited into their later "final" form. However, this written versions are more or less known to us today only through much later (medieval) manuscripts.[8] This body of traditions comprises the Mishnah (m) and Tosefta (t) from third-century Palestine, and the two Talmudic traditions that elaborate upon those earlier texts – the Palestinian Talmud or *Yerushalmi* (pT/y) from the sixth century; and the Babylonian Talmud or *Bavli* (bT/b) compiled between the sixth and the eighth centuries in the East.[9] Unlike many Graeco-Roman scientific works, but similar to ancient Egyptian or Mesopotamian medical texts, rabbinic literature in general has an anonymous and collective authorship. Within a concert of different opinions, genres and topics, those texts contain a wide range of information about the world, biased, and filtered through their authors' lenses.[10]

Another challenge to any inquiry into scientific knowledge in Talmudic sources is its specific, complex, and at times perplexing embeddedness in these

7 The probably early medieval work, *Sefer ha-refu'ot* ('The Book of Remedies'), produced between the seventh to the ninth centuries and attributed to a certain Asaph, the physician (also called *Sefer Asaph ha-rofe*/'The book of Asaph, the Physician') is the first Hebrew text to deal exclusively with medicine. On this work and its multiple sources in Greek, Persian, Indian, and ancient Mesopotamian medical traditions, see most currently YOELI-TLALIM, 2018.

8 Cf. LAPIN, 2012, pp. 38-60.

9 For a general survey of rabbinic literature, see STEMBERGER, 2011. On the canonicity of rabbinic traditions and their complex relationship with rabbinic authoritative texts and their biblical "canon", cf. KRAEMER, 1991; STERN, 2003. For the textual history of the Talmudic traditions, especially of the Babylonian Talmud and its cultural contexts, see HALIVNI, 2013; FRIEDMANN, 2010; VIDAS, 2014.

10 See JAFFEE, 2007 for a thorough discussion of rabbinic collective authorship. On the more diverse scene of ancient Jewry and the co-existence of rabbinic circles with other groups of Jews, see HEZSER, 1997; KALMIN, 2002; MILLER, 2006; SCHWARTZ, 2001; GAFNI, 2011; LAPIN, 2012.

broader contexts of discourses on matters of religious law, ethics, and ritual.[11] However, instead of taking the scattered or clustered occurrence of medical information as a sign of inferiority or lack of scientificity, one should aim at studying their discursive purposes and the strategies of rabbinic knowledge-making within those broader Talmudic discussions.

Such an analysis has to recognize the complex interplay between form and content in the representations of human bodies and medicine. How did the use of certain rhetoric strategies, metaphorical language, or the choice of genres in Talmudic traditions – as in other ancient scientific texts – affect the ideas and concepts conveyed? In what ways do specific hermeneutics and conceptualizations not only serve as a "container", but also as a method for knowledge acquisition? Moreover, a study of Talmudic representations of the body and healing may shed light on how, in this discourse, authorship, authorization, and authority of knowledge intertwined.

Of special interest are strategies of adaptation and appropriation of what has often been called in earlier research "foreign knowledge". Such an approach simultaneously addresses the participation of Jewish traditions in wider discourses of ancient (scientific) knowledge, and varying attitudes held by practitioners of the Jewish traditions towards different types of knowledge (e.g. empirical, revealed, embodied etc.). Moreover, the detailed study of such rabbinic sources will help to flesh out distinct ways of knowing and sets of epistemic criteria for understanding the body and the natural world. This epistemology was shaped by the rabbis' socio-historical context and religious concepts and represents a product of continuous exchanges as well as a self-contained intellectual construct.[12]

11 On the embeddedness of medicine in Talmudic texts, cf. FONROBERT, 2000; GELLER, 2000; 2004; LEHMHAUS, 2015; LEHMHAUS/GELLER et al., 2016; LEHMHAUS, 2017.

12 Cf. REED, 2014, p. 198, note 16.

## "Talmudic Medicine" and Ancient Knowledge of the Body

Throughout history, scientific knowledge, especially in medicine, tended to be conceptualized and conveyed through analogical thinking. This includes metaphors proper, as well as metonymy, and other analogies – all of which deploy pictorial language and verbal imagery. Parts of the body and physiological processes are, thus, likened to phenomena known from nature (landscapes, rivers, or the celestial sphere), from the field of mechanics and production (tools, machines, or factories), or from the realms of human socio-political or everyday life (the body as an administration, or house).[13] We can see this tendency in various branches of Graeco-Roman science: a computation technique called "the sieve" (on prime numbers), depictions of digestion as a form of cooking, or a comparison of the functions of the brain with pipes and channels. Such models served not only the representation of scientific insights, but also often functioned as epistemic tools facilitating cognitive processes, in the first place. Furthermore, they were also exploited to "brand" one's own concepts and, thus, to claim a special expertise, which might help to gain influence in the discursive and practical (i.e. economic) competition with other experts.[14]

In the following preliminary inquiry, I will explore sample texts from Talmudic literature to follow different figurations of thought, or better still, knowledge making cherished among rabbinic Jews in Late Antiquity. I will look at the ways in which those texts construct conceptual metaphors or "mental models" of the human body that inform and shape knowledge related to anatomy and physiology. The cultural specifics and limitations involved in the construction of such metaphors, and how they appear in text are of crucial interest to the analysis here. How do knowledge of the body, rabbinic bodies of

13 For a discussion of this phenomenon and a related bibliography, see LEHMHAUS, 2018, especially nos. 10-14. An intriguing attempt to understand ancient Greek and Chinese medical theories, especially anatomy and physiology, as products of the socio-political formations in their societies of origin is undertaken by UNSCHULD, 2009. He relates the focus on the balance of humours (humoral pathology) in Graeco-Roman medicine to the balance of powers in the Greek polis (democracy). The Chinese idea of Qi (the flow of energy) resembles socio-political systems influenced by Daoistic and Confucian thought.

14 See ASPER, 2013.

knowledge, and the bodies, or corpora of tradition intertwine within this discourse?

The increasing awareness and adoption of interests and methods rooted in the "cultural turn" in the humanities has gained a strong foothold in the study of ancient Jewish traditions, especially of rabbinic sources. This has brought about also a surge of "body studies", employing new approaches and theories in the field of historical and cultural studies (such as feminist and gender theory, historical anthropology, cultural poetics, and everyday history).[15] As in other fields of ancient studies, most of these works pay much attention to the cultural contingency and socio-political construction of the body and the individual (or the self) within the body of society. The shared assumption of most of these scholarly undertakings can be illustrated by the following quote:

> […] the body cannot be thought separately from the social formation, symbolic topography and the constitution of the subject. The body is neither a purely natural given, nor is it merely a textual metaphor, it is a privileged operator for the transcodings of these other areas. Thinking the body is thinking social topography and vice versa.[16]

Stallybrass's and White's description of the ways in which bodies function as an interface of the material, or *physis*, and socio-cultural discourses, can also be fruitfully adapted for the discussion of ancient cultures. After the path-breaking work by Foucault, Bourdieu, and others, scholars have been aware in their analysis that the social construction of bodies provides, on the one hand, multiple possibilities for participation and self-expression. On the other hand, it entails also many, often subtle ways of exclusion and limitation, by which subjects and their bodies are defined and controlled – especially in the case of paradigmatic "others", like the foreigner, the female or the dis/abled. Susan Bordo describes the everyday occurrence of these mechanisms in the following way:

> The body, what we eat, how we dress, the daily rituals through which we attend to the body – is a medium of culture. The body [...] is a powerful symbolic form, a surface on

15 To only mention a few, cf. GILMAN, 1991; BIALE, 1997; 2002; 2008; EILBERG-SCHWARTZ, 1992; 1994; BOYARIN, 1991; 1993; FONROBERT 2000; SCHOFER, 2005; 2010, NEIS, 2013. A comprehensive discussion of the state of the field is provided by SEIDMAN, 1994; FONROBERT, 2005; and ROSEN-ZVI, 2013.

16 STALLYBRASS/WHITE, 1986, p. 192.

which the central rules, hierarchies, and even metaphysical commitments of a culture are inscribed. […] It is also, as anthropologist Pierre Bourdieu and philosopher Michel Foucault (among others) have argued, a practical, direct locus of social control. Banally, through table manners and toilet habits, through seemingly trivial routines, rules, and practices, culture is "made body".[17]

Various studies of rabbinic literature have taken on those theoretical developments and applied them to the reading of pre-modern Jewish traditions, especially to biblical and rabbinic texts. With a small number of exceptions, these inquiries, however, have tended to marginalize medical matters, if indeed they are treated at all. In the present study, I will inquire into the socio-cultural and corporeal dimensions of rabbinic discourses on human bodies, illness, and healing. The first part of the chapter discusses a unique tradition in early rabbinic literature that reflects on anatomy and the number of limbs in the human body. The Talmudic elaborations of this concept entail a potentially conflict-laden encounter between two epistemic sets of knowledge production (empiricism and exegesis), as well as with the gendered approaches of the rabbis to human corporeality. In a second part, I will address another strategy used in rabbinic texts to appropriate knowledge of the body. In particular, I will look into the attempts by Talmudic authors to conceptualize female anatomy and physiology through models and taxonomies that increase their authority in this field and, simultaneously, diminish the role of central agents of knowledge (women or other experts). Finally, the third part will deal with Talmudic passages about more practical areas of ancient medicine, namely therapies and recipes. I will highlight some of the discursive strategies through which the rabbinic authors appropriated medical information and underscored their claims to pharmaceutical or healing expertise based on personal knowledge and experience.

17 Bordo, 2003, p. 165.

# I: Bodies of Evidence and Exegesis of the Body

## The Rabbinic Body Count(s)

The first example from the Talmud relates to the puzzling entanglement of different epistemological approaches – concerned with revealed and empirical knowledge of the body. One of the most detailed anatomical descriptions can be found in *Mishnah Oholot* 1,8. The tractate deals with ritual purity or impurity conveyed by dead matter or a corpse: [18]

There are **248 limbs (*evarim*/איברים)**[19] in the body. Thirty in the foot – six in each toe, ten in the ankle, two in the shin, five in the knee, one in the thigh, three in the hip.

18 I will briefly explain my conventions of citing material from biblical and rabbinic traditions. Throughout all quotations from rabbinic texts, I will work with emphasis to highlight certain keywords and with a twofold system of brackets. Interjections that supplement the at times lapidary and condensed rabbinic discussion are put in square brackets. Explanations, transliterations or literal translations of certain terms as well as references to biblical verses or other rabbinic material cited within the source texts appear in parentheses. Transliterations of Hebrew or Aramaic and biblical texts quoted (together with their reference) are marked by italics.
All biblical quotations in this paper are based on the *Biblia Hebraica Stuttgartensia* (5th amended edition, Stuttgart, 1997) and the translations follows the *The Holy Bible, English Standard Version* (Copyright © 2001 by Crossway, a publishing ministry of Good News Publishers) and *The Holy Bible, New International Version* (Copyright © 1973, 1978, 1984, 2011 by Biblica, Inc.) but are often amended by myself in order to elucidate the specific, exegetical use in the Talmudic context. For my translations of the rabbinic texts (Mishnah, Tosefta, Babylonian Talmud) the manuscript versions and printed editions in the Sol and Evelyn Henkind Talmud Text Databank of the Saul Lieberman Institute of Talmudic Research (http://www.lieberman-institute.com) were consulted. The translations of the Palestinian Talmud are based on the edition of the MS Or. 4720 (Scal.3) in the Leiden University Library by the Academy of the Hebrew Language, Jerusalem 2005; also accessible online at: maagarim.hebrew-academy.org.il. Standard editions for all those texts can be also found (in parts with English translations and commentaries) online at www.sefaria.org and the Bar Ilan Online Responsa Project (www.responsa.co.il).

19 My own emphasis. The Hebrew term *evar* (אבר), pl. *evarim* (איברים)), has often been translated inaccurately as "bones", even though the Hebrew term for bones would normally be *atzamot* (עצמות). The Tosefta in *tOhalot* 1.7 provides a "definition": "Everything that features tendons (*gidim*/גידים) and bones (*atzamot*

[There are] eleven ribs, thirty [limbs] in the palm/hand – six in each finger; two in the forearm; two in the elbow; one in the upper arm; and four in the shoulder. One hundred and one of this ([side of the body], and one hundred and one of that [side; making a total of 202]. And [in the center of the body we find] eighteen vertebrae in the spine; nine [limbs] in the head; eight in the neck; six in the openings of the heart; and five in its reproductive organs (lit. 'cavities/holes'). Each of these conveys [ritual] impurity through touching, carrying, or sharing quarters. When is this true? When the limbs still have an appropriate amount of flesh on them. If, however, they do not have an appropriate amount of flesh on them, they will render impure through touching and through carrying, but not through sharing quarters.[20]

This passage lists 248 limbs according to their place in the human body. It gives a rather complicated order, starting from the lower limbs (feet/legs), before moving to the sides and upper limbs (hips, ribs, arms, and hands). It continues with the center of the body (including spine, head and neck) and concludes, tellingly, with the heart and the reproductive organs. This structure clearly differs from the common Mesopotamian and Graeco-Roman medical scheme "from head to toe/foot".[21] Its particular division and sequence might reflect some rabbinic assumptions about the more important parts of the body.

This first and singular systematic list of the human body in rabbinic tradition has posed quite a challenge to Jewish medieval commentators and modern scholars alike. Many have attempted to identify the limbs (understood as "bones") correctly, based on rather modern anatomical knowledge. In both the commentary traditions and earlier scholarship, one might also discern a tendency to harmonize the obvious differences and, to modern scientific standards, shortcomings of the rabbinic model.

However, it is not the anatomical accuracy of the list that is most important, but the discursive purpose of this unique example of rabbinic anatomy within the broader discussion of purity issues in Jewish religious law (*Halakha*). The rabbis' main goal was to provide a concrete number of limbs, based on some sort of empirical knowledge or anatomical theory. With this "body count", one would be able to determine the "greater part of the corpse",

/עצמות) is [regarded as] an *evar*; and everything that does not feature tendons and bones is not an *evar*." Thus, the term is better translated as "limbs".

20 Mishnah Ohalot 1:8.

21 On the scheme from head to foot, see LAES et al., 2013; and GELLER, 2010, pp. 52, 89, 118. On this Mishnah and the anatomical knowledge contained within, see PREUSS, 1911, pp. 66-70; 1978, pp. 60-67; KIPERWASSER, 2012.

which defiles or causes impurity in different ways (touching/carrying/presence under the same roof).[22]

The number of 248 bones remains a puzzling element of this Mishnah since this total has no equivalent within other ancient medical cultures in the Mediterranean and beyond. However, this specific number re-surfaces in post-Talmudic traditions like the *Sefer Asaph ha-rofe* ("The book of Asaph, the physician"), and among Persian or Arabic medical writers.[23] A model of perfect correspondence between the divine sphere or God's' creation as such (the macro-cosmos) and the world of human experience, especially the body (as the micro-cosmos) is outlined in some Talmudic and para-Talmudic traditions that also feature the count of 248 limbs. According to an annotated Palestinian translation, or better paraphrase, of the Bible (*Targum Pseudo-Jonathan*), humans were created in the image of God with 248 limbs and 365 tendons.[24] The Babylonian Talmud adds to this a third layer elaborating upon the question why Moses received 613 commandments from God. According to this Talmudic teaching, 365 negative commandments match with the cosmic order of the solar year, while the 248 positive commandments correspond to the microcosmic human body.[25] Thus, the Law of Torah incorporates and

22 On rabbinic purity laws and corpse impurity, see BALBERG, 2014, especially pp. 96-121.

23 Ronit Yoeli-Tlalim, in her paper "Counting body parts: views from the Hebrew Book of Asaf" (presented at the conference "Defining Jewish Medicine", at University College London, on July 28, 2014) has pointed out, that *Sefer Asaph*, indeed, seems to be the first tradition (probably to be dated to the seventh or eighth centuries CE) in which the 248 limbs (*evarim*) figure prominently, while this number is surprisingly lacking in Graeco-Roman and ancient Near Eastern medical traditions. Some of those findings are now published in YOELI-TLALIM, 2018.

24 Targum Pseuso-Jonathan to Genesis 1:27 reads: "And God created Adam in his own likeness. In the image of God he created him, with 248 limbs, and with 365 (665) tendons/nerves, and he formed a skin over him, and filled it with flesh and blood, male and female in their appearances/bodies he created them." This amended translation is based on *The Targum of Jonathan ben Uzziel*, translated by J. W. Etheridge, London 1862; https://www.sefaria.org/Targum_Jonathan_on_Genesis.1?vhe=Targum_Jonathan_on_Genesis&lang=bi, last retrieved 01/03/2018.

25 Babylonian Talmud, Makkot 23b: "R. Simlai when preaching said: '613 precepts were communicated to Moses, 365 negative precepts, corresponding to the number of solar days [of the solar-year], and 248 positive precepts, corresponding to the number of the limbs of the human [body]'."
In later, esoteric or mystic traditions of Kabbalah, one finds various permutations of this very idea. Especially in the Zohar, this concept seems to be prevalent, merging Targumic and Talmudic teachings, while adding another layer, namely an

maintains all. And vice versa – the human body behaving in accordance with Torah becomes the manifestation of divine will. One can conclude that the anatomy in the Mishnah comprises the realm of secular, bodily episteme in addition to "hidden" cosmic or divine knowledge.

The Mishnah's unique anatomical text has an interesting afterlife in the Babylonian Talmud's tractate *Bekhorot* ('Firstlings'). In a discussion focusing on definitions of ritual fitness for serving as priest in the Temple, the "regular" number of limbs becomes of crucial importance. For, according to religious law, the ideal standards of priestly bodily perfection do not allow anyone who has too few or too many limbs to serve in this function.[26] However, the Babylonian Talmud in Bekhorot ('Firstlings') 45a, also develops the discussion of the Mishnah in surprising ways:

R. Judah related in the name of Samuel a case story about the disciples of R. Yishmael who once dissected/washed with boiling water [the remaining corpse of] a prostitute who had been condemned to be burnt by the king. They examined and found **252** joints and limbs. {They came and inquired of R. Yishmael: "How many joints has the human body?" He replied to them: "**248**." Thereupon they said to him: "But we have examined and found **252**?"}[27] He replied to them: "Perhaps you made the examination on a woman, in whose case Scripture adds **two hinges** [in her sexual organ] and **two doors**

analogy to the number of angels of different classes. Other traditions, like *Sefer Yetzira* ("Book of Formation") deploy strategies of *gematria* (based on the numerical value of Hebrew letters) to establish connections between biblical verses or figures, e.g., Abraham (numerical value of his Hebrew name = 248), and the human body or God's creation. On these previously mentioned works, see WOLFSON, 2000. In early Jewish Merkavah-mysticism, one finds elaborated speculations about the dimensions and the limbs of the body of God, as well as their incomprehensible names (the so-called *Shi'ur Qoma*), still untouched by any philosophical discomfort with anthropomorphism as such. Josef Dan (DAN, 1998, pp. 205-216) has argued that this tradition presents a complex strategy within ancient Jewish culture to reject simple anthropomorphism by creating a sophisticated, meticulous, and esoteric theory about the divine body. For shared concepts about the corporeality of god(s) in ancient times, see MARKSCHIES, 2016.

26 On the bodily perfection of the priest and aspects of disability theory, see BELSER/LEHMHAUS, 2016, pp. 438-441.

27 This short question and answer passage with R. Yishmael, in which 248 as the 'correct' number of limbs is compared with the students' findings, occurs only in MS Munich 95, and MS Vatican 120, MS Oxford Bodl. Heb. c. 17 (2661), while it is lacking from MS Florence II-I-7, MS Vatican 119, Venice print (1522), Vilna print.

of the womb". It was taught: R. Eleazar said: "As a house has hinges (*ṣirim*/צירים), so a woman's body has hinges [in her sexual organ], as it is written in the Scriptures: *She bowed herself and gave birth, for her "hinges" (ṣireiha*/צירי*ה; lit. "birth pangs") turned suddenly upon/in her (1. Samuel 4:19)*[28]. R. Joshua says: As a house has doors, so a woman's womb has doors (*daltot*/דלתות), as it is said in Scripture: *Because it shut not up the doors of my [mother's] womb (dalte bitni*/דלתי בטני*) (Ijob 3:10)*. R. Akiba says: As a house has a key (*mafteaḥ*/מפתח), so a woman has a key, [for the womb], as it is written: *And [God] opened (wa-yiftaḥ*/ויפתח*) her womb (Genesis 30:22)*."

In light of the opinion of R. Akiba [whose exegesis adds a fifth limb, i.e. the "key"], is there not a difficulty in connection with what R. Yishmael's disciples discovered? [i.e., 253 vs. 252 limbs] — [No!] It may be that since it [the "key"] is small, it was dissolved in the course of boiling/cleaning [the remains of the corpse]. (Bab. Talmud, Bekhorot 45a)

This anecdote relates to students in Palestine examining the dead body of a woman, labelled as a prostitute, in order to determine the number of limbs. Due to confinements in relation to space and the focus of our discussion, many interesting aspects must be left aside here. Earlier scholars, in particular, focused on the historical reliability of the students' examination, often (mis-) translated as "autopsy". Their main goal was to clarify the puzzling Jewish engagement in what they saw as "dissections", a technique rather uncommon and fraught with taboos in Antiquity and the Middle Ages.[29] More recently, aspects of gender bias and some interesting intra-Jewish and transcultural parallels have come into focus.[30] However, of crucial importance for our discussion are the hermeneutics and epistemological issues raised in this narrative.

28 The usual translation of the second part of the biblical verse reads, "*because her [birth] pangs came suddenly upon her*". My translation ("her hinges had turned suddenly on/in her") reflects the exegetical take-on in the text.

29 For earlier scholarship, see PREUSS, 1911, pp. 46-48; 1978, pp. 43f.; KATZENNELSON, 1928, pp. 235-250; RABBINOWICZ, 1883, p. 250, COHEN, ca. 1900?, pp. 10-11. Experimental medical dissections were not performed on human bodies in ancient Mesopotamia (cf. GELLER, 2010, pp. 3-4) or in Graeco-Roman medicine, except for a very brief period in Alexandria. Most medical writers relied on empirical observations made through the dissection and vivisection of animals (apes, pigs etc.). Cf. VON STADEN, 1989, pp, 139-153; and NUTTON, 2013, pp. 130-141, for thorough surveys.

30 Cf. FONROBERT, 2000, pp. 56-59; 2007, pp. 279f.; KIPERWASSER, 2012.

Although the story itself is almost certainly fictitious, it might give us a glimpse into how late ancient Jewish traditions on anatomical knowledge reflect some of the exploratory attitudes towards the human body that they shared with Graeco-Roman medicinal culture. Obviously, the narrative portrays the students' curiosity and their readiness to apply empirical techniques like the observation or examination of a corpse as critical tools. However, in this case, the "body of evidence" does not improve their anatomical knowledge at all. Quite the contrary, the whole examination rather confuses them, since their findings clearly contradict the ideal number of limbs in the human body as listed in an earlier "canonized" tradition (Mishnah *Ohalot* 1:8).[31]

By contrast, Rabbi Yishmael, their teacher, deploys his erudition in biblical traditions and rabbinic exegesis, which allows him to solve the puzzle. Based on earlier rabbinic teachings, he demonstrates that the additional limbs only to be found in women are already encapsulated in the biblical text, if one applies the correct exegesis. For this purpose, he presents three expositions by ancient sages (R. Eleazar, R. Yoshua, R. Akiba). In a common exegetical move, R. Eleazar proposes a creative reading of a verse about an ancient Israelite woman who reacts to bad news by going into labor, but ultimately dies from her "birth pangs". The exegesis plays on the similar characters and phonetics of the Hebrew term for "birth pangs" and the word for "hinges", which allows for an analogy, with this architectural feature as located in the womb and turning during birth. In the two other verses, the exegesis of analogy is based on similar conceptual and linguistic features of those verses about the anatomy of the female womb, which is more directly triggered by the words "doors" and "to open [with a key]".

31 Although accounts of such comprehensive anatomical experiments are limited, one may highlight a general interest in the observation and examination of the body, which is discussed by BALBERG, 2011; 2014 (pertaining to impurities). Furthermore, certain rabbis, like Simeon ben-Halafta, are known for their experimental and empirical approaches to the natural world. I am indebted to Professor Richard Kalmin of Jewish Theological Seminary of America in New York, who was so generous as to share with me his then unpublished paper on rabbinic empiricism, "Observation in Rabbinic Literature in Late Antiquity" (presented at the SBL Annual Meeting 2015 in Atlanta, GA). For its later published version, see KALMIN, 2017. In light of these passages, I can hardly follow the conclusion in VÂRTEJANU-JOUBERT, 2007-2008, p. 178: "[…] rabbis refuse or grant a totally insignificant place to the direct experimentation and observation of the human body."

This short episode might support Hannah Hashkes's claims regarding the epistemology of rabbinic Torah discourse. Based on the observation that every epistemology starts from doubt and aims at settling these doubts, she holds that scientific and religious epistemologies structurally follow the same lines. Science, as she argues, is based mainly on the assumption that natural laws can be analyzed in, and deducted from, the world of human experience by certain theoretical or empirical operations. In a similar way, rabbinic religious thought considers reality as an expression of divine will or, as in case of the rabbis, as part of revealed Scripture that might be discerned via exegesis. Thus, both discourses apply different but structurally similar modes of reasoning in order to conceptualize their experience of the world.[32] Furthermore, R. Yishmael's' solution can be explained as a sophisticated blending of frames or mental models. Jürgen Renn describes mental models as a "form of knowledge representation", through which "conclusions are drawn from incomplete information" and "missing information is supplied by prior experience". Also, in our case, are the "premises of an inference […] not negated but supplemented", while taking recourse to the "knowledge economy" of Jewish and Talmudic tradition.[33]

While his students are unable to make sense of the two contradicting epistemological systems, R. Yishmael, via his recourse to his exegetical core competences, interprets these two possibly conflicting sets of epistemology and evidence as two sides of the same coin. By doing so, he reinforces the all-encompassing understanding of Torah in rabbinic-Jewish culture as entailing and maintaining the entire creation or the cosmos.[34] The discursive strategy towards epistemology is one of "Judaization" or "rabbinization". The key to the knowledge of the body is not to be found in the body itself but in the body

32 See HASHKES, 2015, especially pp. 124-181.

33 RENN, 2015, p. 40.

34 According to rabbinic thought, the Torah is not only regarded as a Holy Scripture or revelation. In fact, many traditions conceive the Torah as the very building plan according to which God created the world. Since the textual body of the Torah constitutes *de facto* the creation, words are of paramount importance and may have some sort of divine or theurgic power. A teaching in the ethical tradition of Avot summarizes best the epistemological value ascribed to the Torah that goes hand in hand with a meticulous, critical, and creative inquiry into the text: "Turn it and turn it again. Since everything is in it" (Avot 5:22). My own translation. For the Hebrew text, see https://www.sefaria.org/Pirkei_Avot.5.22?ven=Sefaria_Community_Translation&vhe=Torat_Emet_357&lang=bi&with=Versions&lang2=he.

of the text. In fact, the key episteme of rabbinic culture is emphasized – namely, the interpretive skills of the sages.[35]

The students' experiment starts as a simple proof for the validity of a canonized teaching about 248 limbs to be found in the earliest authoritative rabbinic tradition – the Mishnah. However, the results of this endeavor question either the authority of this tradition or the reliability of empirical (scientific) knowledge and human perception – or both. R. Yishmael's lesson is twofold: the material and empirical evidence of the body is important, as it reflects the order of divine creation. However, only the profound acquaintance with one's own body of knowledge or corpus of tradition (i.e., rabbinic teachings) facilitates multi-dimensional insights. The episode constructs a complementary hierarchy between different epistemologies – one from within Jewish exegetical tradition and one from empirical knowledge.[36]

## Concepts and Taxonomy: the Female Body as/and the House

In the previously discussed passage, we already saw highly metaphorical conceptualizations of the human body. Tellingly, the additional limbs, explained exegetically as "hinges", "doors", and "key", all refer to the female body, or rather, explicitly to the female genitals. The "body of evidence" is marked as deviating from the standard, "canonical", and supposedly male anatomy, as defined in Mishnah *Ohalot* 1:8. This passage, thus, takes part in a broader rabbinic discourse that conceptualizes the female body, especially the genitalia,

35 It is interesting to note that, in ancient Mesopotamia, the experts for the celestial sciences (i.e., astronomy/astrology) figure often as "scribes of a certain body of texts", whose expertise is mainly grounded in their exegetical competencies. In this respect, ROCHBERG, 2014a, p. 29 points out: "Viewed in this way, what one knows is not nature but texts."

36 The recourse to exegesis, which is directly connected to revelation and the divine, might be understood in light of the interesting penchant for ordeals instead of empirical, physical examinations of virgins before Late Antiquity, as emphasized by LILLIS, 2017, p. 61: "[…] these methods (where people consult or expect intervention from deities and the natural world) are the accepted ones for ascertaining truths of all kinds, but probably also because female virginity is generally thought to be verifiable only by such means; the virgin's body does not offer alternative signs."

by analogy with a house. Cynthia Baker and Charlotte Fonrobert have demonstrated how, throughout biblical and rabbinic traditions, the reference to "the house" is not confined to a static entity or place. Texts rather deploy this analogy metonymically in order to create a symbolic-spatial context for a complex set of embodied cultural practices and social (power-)relations between men and women.[37]

R. Yossi, for example, frankly admits (Babylonian Talmud, Shabbat 118b/ Gittin 52a) his socio-economic dependency on his "house" (i.e., his wife) and his "field" (i.e., his oxen).[38] The tractate *Yoma* explicates the strong bodily and sexual connotations of this analogy. Before the Day of Atonement, the High priest is separated from "his house", lest the contact with his (possibly menstruating) wife would render him unfit/impure. Similarly, the metaphoric language in Mishnah *Mikwaot* and *Niddah* charges the female reproductive organs with symbolic and socio-cultural meaning.

a) If a woman "has served her house" [by having intercourse with her husband] (*she-shimsha beyta*/ששמשה ביתה), and she descended and immersed but did not clean "the house" (i.e. her genitals; *we-lo kavda et ha-bayit*/ולא כבדה את הבית), it is as though she did not immerse [and thus, she remains ritual impure] (Mishnah *Miqwaot* 8:4).

b) (1:7) Even though they said that her hour suffices, she should be examining [herself], except for a *niddah* (menstruating woman) […] And she should examine twice [daily], in the morning and at twilight, and when she is going over "to serve her house" [by having intercourse with her husband] (*overet le-shamesh beyta*/ובשעה שהיא עוברת לשמש את ביתה**).** […]
(2:1) Every hand that examines frequently, regarding women, this is praiseworthy; and regarding men, it should be cut off. […]. It is the way of the daughters of Israel to have intercourse using two checking-cloths

37 BAKER, 2002, especially pp. 56-59 explains (p. 58): "that the female body is rendered 'house' in the same moment in which a woman is rendered 'wife'. […] There is a peculiar symmetry to the act by which a woman is housed and edified: she 'enters his house' as wife while he 'enters her house' as husband." Cf. the discussion in FONROBERT, 2000, pp. 40-60. For metaphorical objectification of women in ancient Greek culture, see DUBOIS, 1991.

38 Cf. bT Shabbat 118b: Rabbi Yossi said: "In all my days, I did not call my wife, my wife, nor my ox, my ox. Rather, [I called] my wife, my home, and my ox, my field".

> (literally: witnesses), one for him, and one for her. The modest ones prepare a third, "to prepare the house" [before intercourse] (*le-taqen et ha-bait/*לתקן את הבית**).** (Mishnah *Niddah* 1:7 & 2:1)

First, a woman's "service to her house", i.e., intercourse, is bound to the obligation to clean (*le-khabed*) and prepare (*le-taqen/le-hatqin*) her house – her genitals are also referred to as "house of secrets" (*bet setarim*).[39] Second, this cleaning service of and by the wife (of both "houses") serves directly her spouse (*ba'al*), who is, thus, defined as the householder/*ba'al ha-bayit* in a twofold sense – one connected to the spatial and social entity of the house proper, and the other one referring to the socio-religious institution of marriage and the body of his wife. Third, via the service to her bodily house for procreation through marital intercourse, the woman also takes care of the continuity of the social entity of these two institutions – the family and the household. This complex blending of social, spatial, and physical realms defines the woman as being responsible for the order of her household as well as for the fitness of her inner, bodily "house".

## From Outer to Inner House

The central imagery of a woman's "inner house" for rabbinic body-discourse figures prominently in passages describing the female sexual organs in analogy to the layout of a building:

> The Sages analogized women through a parable: a chamber (חדר), a corridor (פרוזדור), and an upper chamber (עלייה). The blood of the chamber is impure. If [blood is] found in the corridor, its uncertainty is impure (i.e., there is an uncertainty regarding its origin, and it is thereby impure), because it is presumed to have come from the source (*ha-maqor/*המקור; cf. Lev. 20:18); (Mishnah *Niddah* 2:5).

The choice of this particular analogy attests to the rabbinic penchant for female corporeal domesticity as well as for the idea of women as being containers, an

39 For the various rabbinic expressions for the female genitals that use "house", see ILAN, 2017, pp. 79-86.

idea shared with the ancient Mesopotamian and Greek (medical) traditions.[40] These concepts praise the divine "smart design" of the female body for its very purpose: the conception and gestation of the unborn child.[41] In accordance with those assumptions, the two Talmudic traditions augmented the earlier model of a genital floorplan with some details:

*Palestinian Talmud, yNiddah 2:4 (50a)*

R. Judah [said] in the name of Samuel: "The chamber is further in than the front hall, and the upper chamber is located on top of the chamber, halfway above the front hall. And the door of the upper chamber opens into the front hall."

*Babylonian Talmud Niddah 17b*

Rami b. Samuel and R. Isaac son of Rab Judah learnt the tractate of Niddah at R. Huna's. Rabba son of R. Huna once found them while they were sitting at their studies and saying: "The chamber is within, the front hall is without and the upper chamber is built above them, and a passageway (*lul*/לול) opens between the upper chamber and the front hall." If blood is found anywhere from the passageway/duct inwards, and there is any doubt about its character, [whether it is from the uterus or urinary bladder], it is

40 FONROBERT, 2000, p. 56, emphasizes the rabbis' depiction of a "woman's body […] as the embodiment of interiority versus the male embodiment of exteriority". For a proximity of metaphors like container, vessel, or storehouse in ancient Mesopotamian and Babylonian Talmudic sources, see STEINERT, 2013; 2015; 2017. The analogy with cupping instruments, a wineskin, jars, or vases can be found also in some Hippocratic texts. Cf. FLEMMING, 2017, especially pp. 126-128.

41 A blending of the conceptual model of vessel and house occurs in the Babylonian Talmud, Niddah 31a: "Our Rabbis taught: During the first three months the embryo occupies the lowest chamber [*madur ha-tachaton*], during the middle ones it occupies the middle chamber and during the last three months it occupies the uppermost chamber; and when time to emerge arrives it turns over and then emerges, and this is the cause of the woman's pains [in labor]."
Cf. also Babylonian Talmud Berakhot 61a: "What is meant by the words *And the Lord built the rib/*ויבן ה' את הצלע (Gen. 2:22)? R. Chisda said (some say, it was taught in a Baraitha): 'It teaches that [God] built (variant MS Paris 671: created/בראה) her/Eve after the fashion of a storehouse (כבנין אוצר). Just as a storehouse is narrow at the top and broad at the bottom so as to hold the produce [safely], so a woman is narrower above and broader below so as to hold the embryo.'" The different witnesses for this passage use both Hebrew terms for the embryo(s): *wld*/וולד (MS Munich 95; Cambridge T-S F1 (2) 66; Print Vilna); and *ʿwbrym/* עוברים (MS Paris 671). For rabbinic concepts of embryology, see KESSLER, 2009.

deemed unclean but if it is found anywhere from the passageway outwards, and there is a doubt about its character, it is deemed clean.[42]

From these sources, we can learn that the rabbis saw almost no need for clarifying the Mishnaic metaphors, as such. Both Talmudic traditions accept the number and names of the different rooms, while specifying the actual layout of the inner female house. The Bavli adds the *lul* (לול) – a direct passageway or duct connecting the "upper chamber" and the "front hall".

The above three passages have caused much confusion among Jewish traditional commentators and academic ever since the medieval period. Their variegated attempts to make sense of this floor plan according to their contemporary medical knowledge were doomed to fail. Charlotte Fonrobert, thus, speaks of an analytical or interpretive "impasse". Alternatively, she questions the rabbis' exact, anatomical knowledge about what they were actually talking.[43]

This last suggestion seems worthy of further consideration. Almost certainly, the pictorial conceptualization of female genitalia in analogy to rooms and buildings constituted a kind of fictitious or fanciful anatomy. However, the use of highly metaphorical and comparative language that does not tally with modern, scientific medical knowledge should not be held against these texts as to diminish their epistemological value. Medical images and imagination played a crucial role even in Mesopotamian or Graeco-Roman medicine with their greater preference for empiricism. As already mentioned, in most ancient cultures empirical, anatomical experiments through dissection were constrained by socio-religious taboos, although physical examinations of female genitalia were occasionally performed by male and female health practitioners. Scholars have also pointed out that ancient doctors' penchant for speculation was not in the first place due to this lack of accessibility, but rather because of their philosophical and theoretical inclinations. Their metaphorical conceptualizations, which often exhibit a high degree of sophistication, functioned as

42 Cf. Mishnah Niddah 5:1: "all women transmit impurity in the external house [*bayit ha-hitson*] […];" and the discussion in FONROBERT, 2000, pp. 53f.

43 Cf. FONROBERT, 2000, pp. 40-61, here: 52. An interesting point of comparison, which exhibits a similar degree of abstract knowledge of the female body, is the ancient Greek idea of the "wandering" womb, which moves around in women's bodies and symbolizes their lack of control over their own sexuality. Cf. DEAN-JONES, 2003, pp. 191-195. This concept seems to contrast with the culturally dynamic, though but still rather static, metaphor of the house in Jewish rabbinic thought.

a closed system or "mental model" (Renn) for medical reasoning within their epistemic limits.[44]

Such a tendency toward the scientific use of metaphor seems to suit the rabbis who were not even doctors or medical writers. Thus, the rabbis, in contrast to male and female doctors, were in practice locked out of the women's "inner house". Still, there were various ways to (re-)gain access. First, the sages could consider their own knowledge of female anatomy and physiology based on personal experience within the context of marital relations. Second, they might have obtained information from female experts in these matters, such as doctors, midwives and other female healers, or from other women who shared their bodily knowledge.[45] Third, the sages could (re)gain entrance to, and control over, the female "house", precisely via their Talmudic discourse and its speculative, or imaginary anatomy.

I suggest that the rabbis' penchant for conceptualization and control weakened here their interest in any approved empirical knowledge of the body, which might have been also out of reach from them. Their depiction of the female genitals as a house did not aim for ultimate physiological accuracy.

44 For the "mental model", see RENN, 2015 and above, p. 137. This model making as a shared feature found among most ancient medical cultures in the Mediterranean is summarized by STEINERT, 2013, p. 1; and 2017, pp. 287f. The centrality of metaphorical depictions and analogical reasoning in those traditions is emphasized and exemplified in all contributions to WEE, 2017. The emic perspective of ancient Egyptian pharmaceutical knowledge is discussed by POMMERENING, 2017. The lack of precision in rabbinic language with respect to depicting the body and its functions is due to the penchant in ancient sciences for metaphors and pictorial language that also prevails in Graeco-Roman texts. This point was explicitly criticized by Galen, who, of course, could not free himself from this tendency. Cf. VON STADEN, 1997a.

45 While virginity tests and physical examinations seem to have been standard procedures to a modern reader, this feature is rather absent in most of the ancient Mediterranean cultures prior to the rise of Christianity, as shown by LILLIS, 2017. According to her (esp. pp. 290-311), even after the "anatomical turn" and the introduction of the hymen as corporal marker of virginity, we have to be aware that the accessibility of female bodies through physical close-up examinations of the genitalia might still have been rather uncommon for both male and female healers. Although midwives and other female healing experts, surely, could have relied on their own bodily experience regarding sexuality, menstruation, and pregnancy, one should not presume a complete anatomical, empirical illiteracy among male physicians and male obstetricians. I am grateful to Julia L. Kelto Lillis for her comments on a previous version of this paper and for sharing with me her doctoral dissertation.

First, this image functions as an apt theoretical model that was good to think with in discussions of religious law (*Halakhah*) on im/purity, which built on wider cultural metaphors related to women's bodies and the female domain (i.e., the "house").[46] Second, this theoretical inclination is less surprising if we consider the audience at whom this Talmudic discourse on women's bodies aimed. Regarding the constructions of the female body in ancient Greek medical texts, Helen King has pointed out that the main interaction in the medical sphere of women's ailments would have been between two men: the doctor and the responsible male member of the woman's household (*kyrios*). Hence, "explanations for the woman's illness would thus have needed to convince the *kyrios*, rather than the patient and may have been most successfully phrased in a way which reinforced his views of female nature".[47] Greek medical writers and doctors conceptualized female physiology according to the cultural expectations of other men (clients or fellow medical experts) in order to raise their authority and communicate with their main audience or clients. In a similar fashion, rabbis built their discussions of these matters on broader cultural metaphors of the house and the (female) body, which served as appealing frames of reference for their rabbinic colleagues and their (male) fellow Jews.[48]

Yet, this conceptualization, as already shown regarding the empirical examination of a corpse, has another advantage. For it allows the rabbis to feel "at home" in a twofold sense. First, the conceptualization in terms of the familiar "house" provides access and control to a sphere that is distinctly marked as female and conceived as somewhat opaque, unstable and in need of control. This applies to both the household and the female body, or better still, female

46 The description of the layout of inner rooms serves a definition of blood that renders the woman impure. The schematic localization may help to classify the different occurrences of blood without anatomically clarifying if this blood is, in fact, menstrual, genital, renal, or vesical (from the bladder). Moreover, one might discern the reason for the bleeding: intercourse, menstruation, pregnancy, or an illness. MEACHAM, 1995, discusses the exceptional phenomenon of *dam himud* ("blood of desire"), an unusual bleeding triggered by sexual arousal preceding the wedding night or by anticipating the reunion with one's husband. Another explanation resembles the Greek idea that interprets certain types of blood as female semen. Cf. MEACHAM, 1989.

47 KING, 2014, p. 22.

48 The competitive aspect and the ambition on the side of doctors and medical authors to comply with certain (cultural) expectations and assumptions of their audience regarding female bodies and the nature of women is emphasized by FLEMMING, 2000, especially pp. 361-367.

sexuality and reproduction. Second, this "mental model" grants the rabbis access precisely through application of their main expertise – exegesis and dialectics. In the discourse on menstruation and impurity, as in other cases of medical or technical knowledge, the rabbinic authors deploy certain elements of self-fashioning to claim their expertise in matters of the female body. I suggest that these strategies, strikingly labelled by Charlotte Fonrobert as "displacement of the native speakers",[49] function on two interpenetrating levels.

On the one hand, these discussions aim at creating conceptual models and taxonomies, here of female anatomy and physiology that structure rabbinic discourse surrounding the female body. The neat integration of these models into the core of rabbinic traditions strongly suggest that they represent the most significant sources of knowledge on the body. On the other hand, from early on (i.e., in the first layers of rabbinic literature), rabbis were depicted as the most competent experts advising women regarding menstruation. Based on rabbinic models and taxonomies, those sages appear as medical interpreters who literally apply an exegesis of bloodstains and related issues. Thereby, they gradually conceal and replace first-hand experience and female sensory "knowledge of the body".[50]

Ultimately, those who are deeply involved in those medical issues in practice (i.e. female doctors, midwives, wet nurses) or who possess an abundance of female bodily experience (women in general) are no longer actors or knowing subjects, but become objects of a rather male discourse. Even if rabbinic knowledge draws on female informants, such information would be part of "a framework which already constructed their bodies as inferior and in need of external control".[51]

Ishai Rosen-Zvi has summarized the rationale behind this transfer of expertise: "the sages transformed these laws into a complicated taxonomy of shapes, locations, and colors which demands external expertise. New kinds of knowledge engender new kinds of experts."[52] Accordingly, the observance of

49 FONROBERT, 2000, p. 110.

50 On the 'rabbinic science of blood' and male hermeneutic dominance, see FONROBERT, 2000, pp. 103-127; this discussion is taken up by LIBSON, 2018, pp. 64-97.

51 DEAN-JONES, 2003, p. 194.

52 ROSEN-ZVI, 2013, p. 4; cf. also FONROBERT, 2000, p. 110.

rabbinic body knowledge requires rabbinic observation, examination and supervision.[53]

## II: Knowledge of the Body and Embodied Knowledge

The previously addressed examples of rabbinic discourse primarily emphasized theoretical or conceptual models of the human body with a clear focus on anatomy and physiology (pregnancy/menstruation). However, the majority of medical passages in Talmudic literature displays rather a strong interest in practical aspects of medicine, such as the origins and symptoms of a disease, and possible therapies or preventive measures (diet and bodily regimen). In some rabbinic teachings, medical information appears only in passing as but one of a number of different areas in which certain religious rules apply. For example, in a discussion of the laws of tithing in the Palestinian Talmud, two types of plasters (*malagma/malugma*) and eye-salves (*kylor*; i.e., *kollyrion*) are mentioned. Although being aware of the medical use of these two remedies, the rabbis, however, zero in on determining if and how the main ingredients (i.e., flour and wine) have to be handled regarding different types of tithing.[54]

This kind of appearance as rather common knowledge of medical issues subjugated to overarching questions of religious law were sometimes held

53 Cf. BALBERG, 2011, p. 337, who, in relation to rabbinic discourses on the examination of signs of puberty or skin afflictions, states: "However, the rabbinic medicalization of the inspection procedure should not be understood only in terms of a power fantasy, although this is certainly one of its aspects. Rather, it must be understood in the context of the rabbis' larger hermeneutical claim. The rabbis are, first and foremost, interpreters; their special skill, their technē if you will, is their ability to read texts and decipher the clues, the semeia, that are hidden in those texts. The physical examination of skin afflictions allows a direct transition from the realm of the text to the realm of the 'real,' and, moreover, to the most critical and obsessed-with realm of the 'real' at this period, that of the body."

54 Palestinian Talmud, tractates yShabbat 7:2, 10b and its parallel in yDemai 1:3, 22a read: "[It has been taught (in a baraita):] (1) wine to put into a kollyrion (*qylwr* – *qwlyr*/קילור-קוליר) and (2) flour with which to make a *malagma* [מלוגמא] are liable [to be tithed] as a certainly yet untithed produce, and exempt from [tithing as] *demai*-produce [something doubtful regarding its status of tithing and thus, being fit for sacrifice]."

against the Talmud as not containing proper medicinal and scientific information. In an attempt to amend earlier scholarship with a new focus, recent studies highlight the astonishing degree to which Talmudic texts incorporated technical or expert knowledge from different fields, while also referring to experts and practitioners, both as their informants and competitors.[55] Such deeper acquaintance in the realm of healing can be substantiated by looking at passages that depict rabbis as being familiar with the course of particular diseases, fevers, and appertaining therapies in a way that involves or suggests personal experience.

An illustrative passage contains a teaching on fever and possible cures in the context of the various restrictions of such healing and of preparing certain remedies on Shabbat:

One may prepare *enomlin* (wine mixed with honey, spiced with pepper) on Shabbat. (Mishnah 20:2)

[The Talmud now discusses this particular mishnah:]

A) Our sages taught (*tanu rabbanan*/תנ"ר): One may prepare *enomlin* (*'nwmlyn*/אנומלין) on Shabbat, but one may not prepare *aluntit/eluntit* (*'lwntyt*/אלונטית) on Shabbat.

What is *enomlin* and what is *eluntit/aluntit*?

*Enomlin* – is [a mixture made of] wine, honey and pepper [thus constituting spiced wine, which is commonly consumed and therefore permitted].

*Aluntit/Eluntit* – is [a mixture made of] old wine, pristine water and balsam (*apharsemon*/אפרסמון)[56]

B) *{which is prepared as a cooling in the bath house (by mswt'/בי מסותא).*

R. Yoseph said: *"Once, I entered the bathhouse (byt b'ny/בי באני) after Mar 'Ukba. On leaving I was offered a cup of (such) wine, and I experienced (a cooling sensation) from the hair of my head (right) down to the nails of my toes. And had I drunk another glass I would have been afraid, lest it be deducted from my merits in the future world." But Mar "Ukba drank it every day? Mar "Ukba was different, because he was accustomed to it.}*[57]
(Bab. Talmud, Shabbat 140a)

55 Cf. NOVICK, 2014; 2017; MEACHAM, 2019 (forthcoming), BALBERG, 2011; LEHMHAUS, 2017a; 2017b.

56 Cf. Babylonian Talmud Berakhot 43a, Yoma 38a.

57 The whole section B) in *italics* is in Aramaic, whereas the first part, A), is completely in Hebrew.

This text, based on a discussion in the earlier layers of tradition, contrasts the permitted preparation of *enomlin* (Gr. *oinomeli*)[58] on Shabbat with the forbidden preparation of *aluntit/eluntit*. The underlying rationale, according to other Talmudic passages, distinguishes between substances with a possible medicinal effect, which are commonly consumed or applied and, thus, permitted, while other potions because of their specific or even primarily medical use are not allowed for use on Shabbat.

Going beyond the sheer explication of the different ingredients, the Babylonian Talmud, in the concluding part of this passage (section B), offers a specific context for the application of the second (forbidden) mixture. R. Yosseph's statement attests to the drinking of this potion for cooling the body after visiting the bathhouse. Both the qualification about the application and the following anecdote occur in Aramaic. Already this particular shift, or even deliberate choice of language seems to stress the local, Babylonian character of this anecdote which serves as a proof story. It is very likely that this passage illustrates a local appropriation of earlier Western knowledge, which is amalgamated here. This can be corroborated by a passage in the Palestinian Talmud where a liquid with a similar name (*elentin*, *aluntin*/אלונתין, אלינתין) is applied externally in case of fevers, even on Shabbat.[59] Local knowledge and the ability to intertwine it with transmitted ideas played an equally important role in the discursive universe of the rabbis, as in other ancient expert or elite cultures, including among medical authors.[60]

Moreover, the exclusive first-hand report by R. Yoseph about the bodily "cooling sensation" he experienced, as well as the reference to Mar Uqba's inurement to the effects of the potion lend a great deal of local and experiential authenticity to this particular piece of knowledge. The rabbi's own overwhelming bodily sensations prove the efficacy of the actual potion. The contextualization of the customary consumption of this drink in the bathhouse, however, purges *eluntit*/*aluntit* from the primarily medicinal and uncommon

58 Cf. KOTTEK, 1996, p. 2928.

59 Cf. Palestinian Talmud, yShabbat 14.3 (14c), yBerakhot 1.2 (3a) and Tosefta tShabbat 12.12.

60 For the high value of local knowledge and custom for rabbinic discussions of religious and ritual matters, see VIDAS, 2017. TOTELIN, 2012, p. 309, stresses Galen's sophisticated use of local pharmaceutical knowledge that highlights his Pergamene background as a source of practical experience, while simultaneously underscoring his ability to connect this specific information to his larger patterns and the humoral theory that shaped his pharmacology.

usage on which the prohibition of certain mixtures was based in the Western rabbinic traditions.

The importance of personal experience figures even more prominently when it comes to actual recipes or therapies. The following passage can be found after an anecdote about the famous Rabbi Yochanan who was suffering from *ṣifduna*-disease (possibly an inflammation of the mouth)[61] and was healed by a female healing expert.

Said R. Nahman b. Isaac: *ṣifduna*/*ṣofdina*-disease is different, because though starting in the mouth it extends to the intestines.

1) **What are its symptoms/signs (מאי סימניה)**? If one places anything between his teeth, blood comes from the gums/rows of teeth.[62]
2) **What brings it on** (**ממאי הוי**)? a) The chill of cold wheat-food and b) the heat of hot barley-food; c) also the leftovers of small [*harsana*-] fish-hash[63].
3) **What did she** [the female healer in the preceding narrative] **apply**[64] **to him (מאי עבדא ליה)**?
   a) Said R. Aha the son of Raba: yeast-water, olive oil, and salt.
   b) Mar son of R. Ashi said: Goose-fat on a goose feather.
   c) Said Abaye: I did all this but was not cured until a certain Arab (*taya'a*) told me: 'Get pits of olives that have grown only one third ripe; burn/roast them on a new hoe/shovel and paste [the ashes] onto the gums!' I did so and was cured (Bab. Talmud, Avodah Zarah 28a).

61 JASTROW, 1903, p. 1295: scurvy (cf. bYoma 84a); SOKOLOFF, 1992, p. 463: "ṣifdun" = a sickness (from Z`F`D = to press/contract); generally considered to affect the gums and other organs. Variant spellings: *ṣafdina, ṣofdina, ṣufdana* (yShabbat 2 (40d)), *ṣifduna, ṣefidna* (also ending with heh or aleph). PREUSS, 1992, 196f. identifies it as "stomatitis", i.e. an inflammation of the mouth and lips, often after or together with inflammation of the gums (*gingivitis*). Modern medicine knows of several causes for stomatitis, including infections, nutritional deficiencies, and allergies. For a critical survey of all identifications, see KOTTEK, 1996, pp. 2925f.

62 A parallel of this discussion in the Babylian Talmud, bYoma 84a reads 'gums' (דררי).

63 This is explained by the later Geonic commentators (8th-11th c.) as a dish cooked with small salted fishes, flour and vinegar. Cf. SOKOLOFF, 2002, p. 590.

64 Literally: what did she do to him?

The entire passage is clearly based on the preceding anecdote about R. Yochanan's encounter with a female healer. Striking aspects of this medical case story regarding the figure of the woman and the recipe, to be found in its two versions in the Palestinian Talmud, have been discussed elsewhere.[65] The Babylonian version of the anecdote lacks some interesting details such as the name of the female expert or the ingredients of the recipe, which are presented afterwards, precisely in the passage at hand. Thus, the main difference lies in its discursive function in the new context. Although the Bavli appears to follow along the lines of the halakhic discussion of several broader topics predefined in the Palestinian Talmud (dangerous diseases, healing in life-endangering situations, acceptance of medical experts), the compilers decided to digress from those paths. In fact, they use the case story and the whole discussion on healing in case of emergency as a springboard to add a host of very detailed medical information – not only about *ṣifduna*/*ṣofdina* in the passage cited but also on various other dangerous or severe ailments that fit into this category.[66]

Most interesting in this regard is the following sequence, where the anonymous voice of the compilers provides a disease taxonomy modelled after common patterns of Talmudic dialectics. Their discussion covers the actual symptoms (1), the possible causes or etiologies of this ailment (2a-c) and different therapeutic approaches (3a-c). While regarding the cures the first two opinions of R. Aha and Mar, son of R. Ashi come as second-hand knowledge, Abaye's statement is different due to its empirical twist.

Abaye's opinion provides not only another cure but uses a multi-layered strategy of experiential proof and knowledge transfer to qualify as the most compelling. First, he reports how the remedies proposed by his fellows did not work. Such a rejection of competing medical ideas, on empirical or theoretical grounds, is a common feature of ancient scientific discourse, with authors

65 Cf. LEHMHAUS, 2017a, pp. 241-247. For some more theoretical implications of reading this passage, see LEHMHAUS, 2017b. Tal Ilan (ILAN, 1997, pp. 263-265; 2002, pp. 191-195; 2006, pp. 167-172) has discussed the figure of the female healing expert, her possible background and the rabbinic discursive strategies to 'silence' female experts.

66 See the discussion in bAvodah Zarah 28a-b on open wounds, an excrescence shaped like a berry, an abscess or ulcer, a slit in the rectum, and earache, for which several remedies, recipes and therapeutic advice are provided. The medical cluster continues well onto folio bAZ 29a.

often not shying away from strong invective.[67] Second, he indicates that "his" recipe was revealed to him in a personal encounter with a *Taya'a* – an Arab nomad, merchant or peasant who is portrayed in rabbinic texts as having exclusive access to knowledge of the human body and nature. As in the anecdote about the bathhouse, this confession functions as marker of local knowledge and authenticity. Furthermore, calling on the reputation of the *Taya'a* in other rabbinic traditions, Abaye, in his first-hand report, "stages" this non-Jewish expert not in his own right. Though making a short appearance, he is – in ways similar to the "displacement of the native speakers" in the texts on female physiology – demoted to the role of a discursive helper who underscores ultimately Abbaye's own proficiency in medical knowledge.[68] Third, Abaye not only reveals the actual recipe or prescription, but he also brings proof of its efficacy by referring to his own ailment and experience of full convalescence. This discursive move functions on two levels. On the one hand, through Abaye's statement, the specific recipe that stems from a source of exclusive knowledge is disclosed, incorporated in the Talmud's textual universe, and thus made available to future recipients. Moreover, intertextually, this disclosure, as well as the recipe itself, is more than a bow to the story about R. Yochanan, who unveiled the pharmaceutical information provided by the female healer. The proximity functions also on the level of two great rabbinic figures who suffered from the same disease and were healed due to their willingness to interact with non-rabbinic informants.[69] On the other

67 Cf. TOTELIN, 2012, especially p. 311; on Galen's criticism of predecessors and contemporaries, see MATTERN, 2008, pp. 72-80.

68 On the *Taya'a* or *Tayaye* in rabbinic texts, see BAKHOS, 2006, p. 159, note 70; and FIRESTONE, 2010, pp. 5-9. Sara Ronis, in her paper "Taming the Other: The Magical Arab in Rabbinic Literature" (presented at the SBL Annual Meeting in San Antonio, Texas, 20 November 2016), has drawn some thought provoking parallels between the rabbinic discursive deployment of the *Taya'a* and the film trope of the "magical negro" in American cinema. For the reference to the reputation of certain experts or ancient authorities as sources for a recipe, see STEINERT, 2015, especially pp. 125-132.

69 Strikingly, the actual recipe, its ingredients, and the form of application resemble very closely the cure prescribed by the female healer as described in the Palestinian Talmud parallel of this passage. Her recipe includes as the main substance the ashes of (half) burnt date stones, mixed with barley husk, and the dried excrement of a young child. This observation triggers questions about the peculiar discursive strategies at work in the Babylonian Talmud for the same discussions. For an in-depth inquiry into the *materia medica* in the Palestinian Talmud, see LEHMHAUS, 2017a.

hand, Abaye's readiness to prove the medicinal benefit of the recipe by testing it with his own body sets his proposed remedy apart from the merely abstract second-hand proposals of his colleagues. As has been shown in numerous studies, ancient medical texts make frequent use of first-person statements, as well as of references experience and empirical proofs often coined in labels or phrases that served to prove the efficacy of a cure and to foster their claims to expertise.[70] In Greek medicine, especially in Galen and the authors of later medical compilations, frequently, "qualified experience (*diorisme peira*), takes precedent over reasoning in acquiring pharmacological knowledge".[71] The strategic deployment of personal case stories about cures and tested remedies serving as final proofs figures prominently also in other Talmudic medical clusters.

## Knowing Bodies of Knowledge

In the discussion of three sample passages, I have highlighted the different strategies used to establish and legitimize rabbinic engagement with, and expertise in, bodily and medicinal matters.

The first part inquired into the reconciliation between two conflicting anatomical accounts – the list of limbs in Mishnah *Ohalot* and the examination of R. Yishmael's students (*Bekhorot* 45a) – and their underlying epistemologies, via the exegesis of biblical verses. Thus, this passage highlights conflict and overlap between two important ancient "epistemic genres" and their modes of cognition that intertwine in Talmudic discourse: the case and the commentary. The recourse to the textual interpretation of earlier, authoritative traditions (commentary) appears as a *rabbinization* of knowledge derived from experiment and practice (case).[72] Empirical knowledge of the body challenges traditional bodies of knowledge (Mishnah/Oral Torah), but is

70 In Mesopotamian medicine, one finds a range of "tested remedies" and efficacy labels or phrases, which imply "that knowledge of effective drugs and remedies had been acquired through practical experience and repeated trials and formed an important part of medical knowledge" (STEINERT, 2015, p. 104.). For the strategic use of "I" and first-person claims in ancient scientific texts, see TOTELIN, 2012, pp. 308-310; FÖGEN, 2009, especially pp. 106-289; DOODY/TAUB, 2009.

71 TOTELIN, 2012, p. 310. For the concept of "qualified experience" in Galen, see VAN DER EIJK, 1997.

72 On the case and the commentary as "epistemic genres", see POMATA, 2014.

challenged itself in this process. In the end, the text constructs a possible co-existence of knowledge derived from empirical examination and revelation – without smoothing away their generic or ontological difference. The "mental model" used here in order to mediate between those approaches builds on a pre-existing semantic web in Jewish traditions (biblical and rabbinic) and its strong association between women, female sexuality, and the domestic sphere ("the house").[73]

The second strategy comprises the taxonomic conceptualization and even the usurpation of non-rabbinic body expertise – as illustrated by the rabbinic take on anatomy of the womb, embryology, womens's body knowledge, and female sensations regarding menstruation. This discursive "domestication" refines specific religious-cultural semantics (the "house") into anatomical concepts, or creates complicated taxonomies (the scale of blood colors) based on first-hand sensory experience. Still, this overtly theoretical discourse rather ardently seeks meeting the conventions of Talmudic dialectics or complying with the cultural semantics about women and their bodies instead of zeroing in on a conceptualization of the body grounded in empirical examination. Making recourse to cultural models deeply entrenched in general culture, facilitated the rabbis' claim to anatomical and exegetical expertise in striking similarity to ancient Graeco-Roman physicians and their strategies of self-assertion vis-à-vis competitors and clients.[74]

The examples related to the third strategy stressed how the personal and, in fact, the bodily involvement of sages lends greater authenticity to the medical knowledge conveyed through familiar patterns of rabbinic oral culture and Talmudic dialectics.[75] Empirical proofs and experience in medical issues may have amplified their claims to expertise and, thus, enhanced the adoption of certain ideas and practices. This observation tallies with the key role of the

73 Cf. RENN, 2015 for the ability of epistemic or mental models to accommodate new insights and empirical data without causing harm to the previously existing knowledge model.

74 HOLMES, 2009, p. 10: "Such research has persuasively shown that the medical writers, while lively polemicists, in many cases provided new justification for conventional wisdom. The constructed and 'fantastic' nature of what the medical writers believe about the body is particularly evident in their ideas about the female body, which dovetail neatly with long-held cultural stereotypes about female inferiority and women's childbearing function."

75 For the oral and interactive dimensions of ancient medicine and sciences, see TOTELIN, 2012; and TAUB, 2008, especially pp. 1-30. TOTELIN, 2009, pp. 21-64, stresses the oral nature of pharmaceutical knowledge in Hippocratic texts.

sages as transmitters or carriers of (medical) knowledge in Talmudic culture who frequently stage themselves not only as Torah scholars, but also as experts in various fields of (medical) knowledge. This adaptation builds on a twofold expertise of the rabbis grounded in their own tradition (Bible, rabbinic lore, and hermeneutics) and in secular or scientific knowledge, often informed by their immediate practical involvement.

On the level of cultural semantics, one may explain these modes of knowledge transfer and transformation in Talmudic texts, in accordance with Brooke Holmes's observation regarding the emergence of the physical body (*soma*) in ancient Greek culture. First, this new "epistemic thing" called "the body" has a twofold nature. While it is a "model of intelligibility" allowing for manipulation and explanation by the expert of medical *tekhne*, it also remains an unstable and opaque entity, whose functioning is hidden, and which defies intentional control. Second, given the opacity of this internal physiology, Holmes stresses the crucial importance of signs and symptoms serving as "springboards into an unseen world that has been adventurously reconceptualized".[76] Thus, the "autonomy and authority of medicine" was mainly based on its experts' and practitioners' ability to read, interpret, and intervene rendering the body "an object of technical knowledge and manipulation".[77] The three passages around which the current study is based are perhaps best understood in terms of shared approaches: the readability and interpretability of physical and textual bodies. The Talmudic authors blend these medical and exegetical-dialectical approaches, as we have seen, in various ways: Torah-based explanations of empirical evidence, anatomical conceptualization rooted in the cultural semantics of female domesticity, and discussion of disease taxonomies and therapies in the guise of Talmudic dialectics. The rabbis' ability to handle bodies by navigating between two bodies of knowledge expands the scope of both their discourse and their fields of expertise.

I propose that the discursive integration of medical knowledge as well as the rabbis' self-fashioning as (medical) experts are deeply entrenched within their broader late antique framework of shared discourses and cultural competition among and between elites by the means of medicine – in practice, but also in theory.[78] Already, some twenty-five years ago, scholars of ancient

76 HOLMES, 2009, p. 4. On the "epistemic thing", see IBID., p. 18f.

77 IBID., p. 25.

78 One of the research 'sideshows' of my current project on rabbinic medical knowledge relates to the question of how a broader tendency towards encyclopaedism

medicine began adopting a more pluralistic view of medicine as a field of "diversity and dispute", where "Greek and Roman physicians constructed their authority, formulated […] their ideas in order to gain paying patients as well as the esteem and respect of a wider audience".[79] Furthermore, several recent studies have highlighted the extensive use of detailed medical knowledge in exegetical works, sermons, and other primarily religious texts authored by early Christian writers. This appropriation of a medical discourse was interpreted as a deliberate strategy of demonstrating "mastery" in a field of knowledge, which simultaneously enriches a Christian *paideia* and proves its all-encompassing superiority.[80]

However, this contextual framing should not belittle the complex epistemological efforts made by the rabbis in appropriating and developing the medical ideas and approaches prevailing within their cultural contexts. It were precisely those discursive strategies of the sages that facilitated the transfer of late antique "knowledge of the body", featuring but not limited to medical episteme, through their very own rabbinic "knowing bodies" into authoritative traditions – the Jewish "body of knowledge" per se: the Oral Torah or Talmudic tradition. This development is strongly linked to a common notion and the self-fashioning of the rabbis as representing a "living tradition", or "embodied Torah". Here we have come full-circle, when the rabbis as "knowing bodies" ensure and procure the appropriation and legitimation of old and new forms of knowledge making about the human body and through their own bodies. In a variety of ways, still to be studied in detail, rabbinic discourse and

and changing concepts of *paideia* in Late Antiquity might have played a role in the formation of the Talmudic traditions and the rabbinic projects of knowledge making. Some preliminary thoughts on this matter have been presented in my talk at the bi-annual meeting of the *Shifting Frontiers in Late Antiquity* at Yale in March 2017, and in a paper ("Encyclopaedic turns in Late Antiquity and Talmudic knowledge culture") circulated in the seminar "What did the rabbis know? – rabbinic knowledge cultures in late antiquity", which I had organized at the annual meeting of the *Association of Jewish Studies* in Washington, D.C., December 2017.

79 FLEMMING, 2000, p. 9.

80 In addition to the works cited in notes 5 and 6 above, I would like to mention here the studies on early Christian traditions by GRIFFITH, 2006; CHALMERS, 2014; PENNIMAN, 2015; MAYER, 2015; HEYNE, 2011; FORMISANO, 2013; and the contributions in MARX-WOLF/SECORD/MARKSCHIES, 2017. For a general survey, see NUTTON, 2014, pp. 293-317; FERNGREN, 2009; and PORTERFIELD, 2005, especially pp. 43-65. For strategies of self-fashioning as medical experts among early Christian missionaries, see BAZZANA, 2009.

interpretive practices engaged with and created medical knowledge of the body, which ultimately became part of dynamic bodies of Jewish knowledge in Late Antiquity and beyond.

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