

R. ISRAEL LIPSHUTZ
AND THE MOUSE THAT IS
HALF FLESH AND HALF EARTH:
A NOTE ON TORAH U-MADDA
IN THE NINETEENTH CENTURY

SID Z. LEIMAN

I

A curious passage in the Mishnah reads as follows: “A mouse that is half flesh and half earth: if one touches the fleshy portion, he is unclean; if the earthy portion, he is clean.”¹

Already Maimonides saw the need to defend, even while expressing surprise at, the existence of such an unusual creature. He wrote:

The spontaneous generation of the mouse specifically from the dust of the earth, so that it is part flesh and part earth or mud, yet its entire body is in motion, is a matter well known. Countless persons have told me that they have seen it. Nonetheless, the existence of such a creature is an astonishing matter, which cannot be explained.²

¹ M. Hullin 9:6. See also b. Sanhedrin 91a.

² *Commentary on the Mishnah, ad loc.* Later authorities who defended the existence of this unusual creature include R. Pinehas Hurwitz (d. 1821), ספר הברית (Jerusalem, 1990), I.14.8, p. 222; and R. Yekutiel Aryeh Kamelhar (d. 1937), התלמוד ומדעי החבל (Lemberg, 1928), p. 90. Cf. the sources cited below, note 15.

Some interpreters of Maimonides understood this passage as essentially denying the existence of the mouse that is half flesh and half earth. See, e.g., the amusing discussion in R. Yosef Kafih’s edition of Maimonides, משנה תורה (Jerusalem, 1986), vol. 3, הלכות שבת 11:2-3, n. 4, pp. 231-232.

Needless to say, by the nineteenth century the theory of spontaneous generation had fallen on hard times.³ Moreover, nineteenth-century zoological studies knew nothing about a mouse that was half flesh and half earth. The problem that now presented itself was a baffling one indeed. Why would the Mishnah discuss the halakhic status of an imaginary creature?

R. Israel Lipschutz (d. 1860), rabbi of Danzig⁴ and Mishnaic commentator,⁵ addressed this very issue. At our passage in Mishnah Hullin, Lipschutz wrote as follows:

I have heard heretics mocking at the very mention of this creature here and in Sanhedrin.⁶ Indeed, they deny that such a creature exists at all! I therefore feel that it is appropriate to cite here what I discovered in a German book authored by a renowned Gentile scholar named Link. In his *Urwelt*, vol. 1, p. 327, he states that such a creature is found in Egypt, in the district of Thebais. This species of mouse is called in Egyptian *Dipulus Jaculus*, and in German *Springmaus*. Its front parts, including the head, breast, and front legs, are well formed. Its backside initially consists of clods of earth until, after several days, it is entirely transformed into flesh. I then exclaimed: *O Lord, how manifold are Your works; in wisdom You have made them all* (Ps. 104:24)!⁷

³ See, e.g., J. Farley, *The Spontaneous Generation Controversy from Descartes to Oparin*, Baltimore, 1977.

⁴ A definitive biography and critical study of the writings of R. Israel Lipschutz remains a scholarly desideratum. See provisionally, A. B. Posner, "בעל תפארת ישראל ופירושו," in *שנה בשנה* 4 (1963), pp. 395–401; S. Dovlitzki, "בעל תפארת ישראל וצוואתו," in *המעין* 11:4 (1971), pp. 28–44; S. Z. Leiman, "R. Israel Lipschutz and the Portrait of Moses Controversy," in I. Twersky, ed., Danzig, *Between East and West: Aspects of Modern Jewish History* (Cambridge, 1985), pp. 51–63; Y. Elman's introduction to, and annotated translation of, Lipschutz's *דרוש אור החיים*, in A. Kaplan, *Immortality, Resurrection, and the Age of the Universe: A Kabbalistic View* (Hoboken, 1993), pp. 71–136; and what can be gleaned from S. M. Gollancz, *Biographical Sketches* (London, 1930), pp. 59–61.

⁵ His commentary on the Mishnah first appeared during his lifetime in a series of miniature volumes published in Danzig, Hanover, and Koenigsberg between 1830 and 1850. After his death, the commentary was republished in a series of expanded editions in Berlin and Vilna, culminating with the twelve-volume Vilna, 1927 edition, the standard rabbinic edition of the Mishnah. Recent American and Israeli editions are more or less faithful reproductions of the Vilna, 1927 edition.

⁶ See above, note 1.

⁷ משניות תפארת ישראל יכין ובוטז, Vilna, 1927, vol. 8, p. 94a.

A cursory reading of this passage would lead one to imagine that Lipschutz had chanced upon a scientific treatise by a contemporary scholar which proved that the very creature mentioned by the rabbis was alive and well in Egypt in the nineteenth century. Alas, an examination of the book cited by Lipschutz proves otherwise.⁸ Heinrich Friedrich Link (1767–1850) was a distinguished German botanist and zoologist who served as director of the Botanical Gardens and professor of pharmaceuticals in Berlin. His *Die Urwelt und das Alterthum erlautert durch die Naturkunde* (in translation: “The Primeval World and Antiquity Elucidated by Natural History”) appeared in several editions, but the passage cited by Lipschutz appears only in the first edition, Berlin, 1821, vol. 1, p. 327—precisely on the page indicated by Lipschutz. But, as indicated by its title, the book treats the primeval world and antiquity. Link gathered together the scientific evidence for the rise of civilization, examining such topics as the natural habitats of incipient animal and human life in antiquity. He was particularly interested in the cosmogonies of antiquity, and examined the literary records of ancient India, Persia, Phoenicia, and Babylonia, among others, for evidence of their respective cosmogonies. In his discussion of ancient Egyptian cosmogony, Link cites a passage from Diodorus Siculus, the first-century B.C.E. Greek historian. It reads (in English translation):

Now the Egyptians have an account like this: When in the beginning the universe came into being, men first came into existence in Egypt, both because of the favorable climate of the land and because of the nature of the Nile. For this stream, since it produces much life and provides a spontaneous supply of food, easily supports whatever living things have been engendered; for both the root of the reed and the lotus, as well as the Egyptian bean and corsaeum,⁹ as it is called, and many other similar plants, supply the race of men with nourishment all

⁸ That no one appears to have noticed this before now is probably due to the fact that copies of Link’s *Urwelt* are exceedingly rare and not readily available in many of the world’s leading libraries. Note that the late Professor Saul Lieberman, surrounded by the libraries of the Jewish Theological Seminary, Union Theological Seminary, and Columbia University, was not able to locate a copy. See his *Hellenism in Jewish Palestine* (New York, 1962), p. 184, n. 36.

I am indebted to the Princeton University library for enabling me to restore the missing Link, by making the volume available to me via interlibrary loan.

⁹ Corsaeum is the tuber of the Nile water-lily.

ready for use. As proof that animal life appeared first of all in their land, they would offer the fact that even at the present day the soil of the Thebaid at certain times generates mice in such numbers and of such size as to astonish all who have witnessed the phenomenon; for some of them are fully formed as far as the breast and front feet are concerned, and are able to move, while the rest of the body is unformed, the clod of earth still retaining its natural character. . . . Indeed, even in our day during the inundations of Egypt the generation of forms of animal life can clearly be seen taking place in the pools which remain the longest; for, whenever the river has begun to recede and the sun has thoroughly dried the surface of the slime, living animals, they say, take shape, some of them fully formed, but some only half so and still actually united with the very earth.¹⁰

Diodorus' account of spontaneous generation, and more specifically, of a mouse that was part flesh and part earth, was commonplace in Greco-Roman literature. Others who mention this earthy mouse include Ovid, Pomponius Mela, Pliny the Elder, and Aelian.¹¹ Thus it comes as no surprise that the rabbis discussed the status of a creature they had never seen, and one that modern scholarship would label as imaginary. The greatest scientists and historians of their day took its existence for granted. If so, its halakhic status needed to be discussed and clarified.¹² But this was not Lipschutz's response to the nineteenth-century Jewish heretics; nor was it his understanding of the Diodorus passage cited by Link. Note that Lipschutz informs us that the mouse "is called in Egyptian *Dipus Jaculus*, and in German *Springmaus*." None of this appears, or even could appear, in Diodorus, who wrote in

¹⁰ Diodorus Siculus, *Bibliotheca Historica*, Loeb Classical Library edition, translated by C. H. Oldfather (London, 1933), vol. 1, pp. 35-37 (= Book I, 10, 1-7).

¹¹ For precise references to these and other parallel passages, see L. Lewysohn, *Die Zoologie des Talmuds* (Frankfurt am Main, 1858), pp. 345-47; S. Lieberman, *op. cit.* (above, note 9), pp. 183-84; and P. W. van der Horst, "Two Notes on Hellenistic Lore in Early Rabbinic Literature," *Jewish Studies Quarterly* 1 (1993-94) 252-62. Strangely, Lieberman seems to have been unaware of Lewysohn's contribution; in turn, van der Horst seems to have been unaware of Lieberman's contribution.

¹² This, in fact, was Lieberman's (above, note 8) solution to the problem of why the rabbis discussed the halakhic status of a creature they had never seen. Van der Horst (above, note 11), who arrived at a similar conclusion, seems to have been unaware that he was anticipated by Lieberman (see previous note).

Greek, and not in Latin. Nor would Diodorus have imagined that *Dipus Jaculus* was Egyptian. What happened is that Link added a footnote to the Diodorus passage, in an attempt to account for the belief in the existence of this strange creature in antiquity. Link's note reads (in translation): "The Springmaus (*Dipus Jaculus*), which dwells in Upper Egypt and is characterized by very short forelegs, doubtless could lead one to conclude that it is a not yet fully developed creature."¹³

Link was suggesting that the very existence of the Springmaus, or jerboa, a small, leaping kangaroo-like rodent found to this day in the arid parts of North Africa, and characterized by long hindfeet and short forelegs, may have misled the ancients into thinking that the different parts of the body of some mice fully matured at different times. Lipschutz, however, understood Link to be equating the Springmaus with Diodorus' mouse that was part flesh and part earth.¹⁴ Moreover, he understood the Latin taxonomical classification *Dipus Jaculus* to be Egyptian. The upshot of this was that Lipschutz was persuaded, quite mistakenly, that the mouse described by the rabbis as being half flesh and half earth was alive and well in nineteenth-century Egypt, as attested by no less a scholar than Professor Link! For Lipschutz, then, the solution to the problem of why the rabbis were discussing the halakhic status of an imaginary creature was a simple one. The creature was real, not imaginary.¹⁵

¹³ Link, *Urwelt*, vol. 1, p. 327, footnote.

¹⁴ That no such equation was ever imagined by Link is obvious not only from the plain sense of the wording of his footnote, but also from the fact that Diodorus describes a mouse whose front parts, breast, and forelegs were fully formed, while the hindparts of its body were unformed. Link, in his footnote, describes the Springmaus, whose very short forelegs give the appearance of not being fully formed, while the hindparts of its body are fully formed.

¹⁵ Unaware of Lipschutz's misreading of Link, later authorities cite his discussion approvingly. See, e.g., R. Menahem Kasher, *תורה שלמה* (New York, 1949), vol. 1, p. 151; R. Reuven Margolioth, *מרגליות ים* (Jerusalem, 1958), vol. 2, p. 68a (ad b. Sanhedrin 91a); Dr. Avraham Steinberg, *אנציקלופדיה הלכתית רפואית* (Jerusalem, 1991), vol. 2, column 302, n. 233; anonymous, *קונטרס ואנכי תולעת* (Brooklyn, 1994), p. 13; and R. Amitai Ben-David, *שיחת חולין* (Jerusalem, 1995), p. 533.

While Lipschutz may not have been alone in believing that such a mouse still existed in Egypt,¹⁶ I doubt that any zoologist of stature would support the idea. Certainly, Link did not. One would like to think that Rabbi Israel Lipschutz, whose seminal work is everywhere characterized by intellectual honesty, would have retracted his garbled reading of Link if only the error had been brought to his attention.

II

The notion that the rabbis could have discussed the halakhic status of a creature correctly labeled imaginary by subsequent scholarship, or that they could have suggested a medical remedy that would justifiably be invalidated by contemporary medicine, has a history of its own. What follows is a schematic presentation of some of the more interesting turning points in that history.¹⁷

1. Perhaps the earliest source to admit openly that some scientific statements in the Talmud were not made *ex cathedra*—and by implication reflected the state of scholarship in antiquity—is a Gaonic responsum ascribed to R. Sherira (d. 1006), Gaon of Pumbedita. It reads in part: “We must inform you that the talmudic rabbis were not physicians. They simply listed the remedies current in their day for the various sicknesses. Their suggestions carry no rabbinic authority and should not be relied upon.”¹⁸

2. Maimonides (d. 1204), in a variety of passages, suggested that rabbinic statements on science were derivative. The following passage from the *Guide for the Perplexed* is unequivocal:

Do not ask of me to show that everything they [i.e., the rabbis] have said concerning astronomical matters conforms to the way things really are.

¹⁶ See W. R. Dawson, “The Mouse in Egyptian and Later Medicine,” *Journal of Egyptian Archaeology* 10 (1924) 83–86, who writes (p. 83): “The modern Egyptians, I am told, likewise believe in the spontaneous generation of mice from the Nile mud.”

¹⁷ In general, see the references gathered together in D. Frimer, “קביעת אבהות על ידי” in *אסיא* 5 (1986), p. 192, n. 45; A. Steinberg, *op. cit.* (above, note 15), columns 258–259, notes 74–76; and N. Gutel, *השתנות הטבעים* (Jerusalem, 1995), *passim*. A major figure who addressed this issue was Azariah de’ Rossi, *מאור עינים* (Mantua, 1574). See especially chapter 11 (ed. Cassel, Vilna, 1866, pp. 154–180), though the theme is writ large throughout the volume.

¹⁸ B. M. Lewin, ed., *אוצר הגאונים: גיטין* (Jerusalem, 1941), section *התשובות*, p. 152.

For at that time mathematics was imperfect. They did not speak about this as transmitters of dicta of the prophets, but rather because in those times they were men of knowledge in these fields or because they had heard these dicta from the men of knowledge who lived in those times.¹⁹

3. Similarly, Abraham Maimonides (d. 1237) distinguished between the *ex cathedra* pronouncements of the rabbis and their scientific knowledge.

Know that whoever supports a particular viewpoint, paying homage to the person who first expressed it and accepting his opinion without first investigating whether the opinion is true or false, espouses intellectual vice. Such vice is forbidden by the Torah and by rational thought. . . . It follows, then, that we need not support or agree with rabbinical pronouncements on medicine, science, and astronomy merely because of the greatness of the rabbis or because of their expertise in Torah study and exegesis. We rely on them in matters pertaining to Torah, for they are masters of Torah and are charged with teaching Torah to the masses, as it says (Deut. 17:11): *You shall act in accordance with the Torah they shall teach you.*²⁰

4. The issue of spontaneous generation led to rabbinic controversy in the eighteenth century and later. R. Isaac Lampronti (d. 1756), who was convinced that the research of Francesco Redi (seventeenth century) and others had laid the notion to rest, could only conclude that the references to spontaneous generation in the Talmud reflected the state of science in antiquity and not objective truth. Lampronti wrote: "The sages of Israel sometimes spoke on the basis of reason alone and on the basis of human research, and not on the basis of received tradition."²¹ Lampronti, a physician and *rosh yeshiva*, wanted to reverse a rabbinic law which allowed lice to be killed on the Sabbath, since, as the Talmud explains, they are born through spontaneous generation. He was overruled, however, by his teacher R. Judah Briel (d. 1722), Chief Rabbi of Mantua, who supported the traditional halakhic teaching despite the results of scientific advances.

¹⁹ *Guide for the Perplexed*, ed. S. Pines (Chicago, 1963), III.14, p. 459.

²⁰ Excerpted from "מאמר על דרשות חז"ל" in R. Reuven Margolioth, ed., רבנו אברהם בן הרמב"ם: מלחמות השם (Jerusalem, 1953), pp. 83-84.

²¹ צידה האסורה והמותרת בשבת (Jerusalem, 1970), sub: פחד יצחק, p. 21b.

5. Doubtless, the clearest and most exhaustive formulation of the derivative nature of rabbinic science is that of R. Samson Raphael Hirsch (d. 1888). In a letter addressed to R. Hile Wechsler in 1876,²² he wrote:

Anyone who engages in the study of the words of the sages must above all realize that they were primarily scholars of the divine law, transmitting and teaching the Torah and its precepts. They were not, as such, biologists, mathematicians, astronomers, or physicians except insofar as knowledge in these fields was relevant and required for the proper understanding and observance of Torah and mitzvot. Knowledge of these disciplines was not part of the Sinaitic tradition. . . .

Even in one's own field of study, it is neither possible nor expected to discover and to know everything by means of one's own experiments. Most of one's knowledge is dependent upon researches done by others. Should those prove to have been erroneous, no blame is attached to the individual. It is of sufficient merit to have acquired all the established body of knowledge in one's field. In no way is one's stature diminished if, during a later age, it is discovered that some of the propositions relied upon were flawed. Such, too, is the case with respect to the sages' knowledge in the sciences. They acquired the body of scientific knowledge as established in their age. In this respect their scholarship was on a par with that of their Gentile contemporaries.

Imagine, for instance, a man like Humboldt²³ living in their age. He would set out on his journeys of exploration and report from a distant land that there existed creatures with a human shape but growing from the ground, or that there existed mice produced from the soil and that mice, half earth, half animal, and similar creatures, were still extant, and that the existence of such creatures was widely held to be true and factual. Would we not expect the sages to discuss the status of these creatures from a Torah viewpoint and clarify their status in respect to the forbidden and the permitted, cleanliness and uncleanness, even without their setting out to verify the existence of such creatures? Because we know today that such creatures were but fantasy, can we hold the sages responsible for tales accepted as factual by all men of science in their age?

²² On Wechsler, see J. Kirsch, *The Reluctant Prophet* (Los Angeles, 1973); cf. R. Horwitz's introduction to Wechsler's *דברי אזהרה לישראל* (Jerusalem, 1991), pp. 9-47.

²³ Alexander von Humboldt (d. 1859), noted German explorer and geographer.

These tales are, in fact, found in the works of Pliny the Elder, who lived in Rome during the end of the Second Temple period, and who collected in his works of natural history all that was currently believed and accepted. Whoever reads the aggadic passage about man's spine being transformed into a snake after seven years, but only if he did not bow at *modim*, as told in Baba Kamma,²⁴ will be highly amused. Yet these exact words can be read in Pliny: "They say that the backbone of a person after a fixed number of years is turned into a snake." The sages, however, employed these legends for their own purposes, providing them with an ethical dimension.

I believe that wherever we find a startling statement of this nature made by the sages, and we research it properly, we will find that it was a widely held belief in those days. Moreover, we find that the sages regarded the wisdom of Gentile sages as equal to their own in respect to scientific matters. When deciding upon the correctness of a scientific argument with Gentile men of learning, they did not rely on their own tradition but upon reason. They would even acknowledge the superior wisdom of Gentiles by saying, "Their arguments are more sound than ours," as they did, for instance, in the argument about the orbit of the sun by day and by night, as related in Pesahim.²⁵ The Jewish sages said, "By day the sun orbits below the firmament, and by night above the firmament." The Gentile sages said, "By day the sun orbits below the firmament, and by night below the earth." Rabbi Judah the Prince added: "Their arguments are more cogent than ours." This, I consider clear roof for what I have said.²⁶

6. Due to technological advances in the twentieth century, tests indicating blood type could be used to either establish (the likelihood of) or preclude (with virtual certainty) paternity. This, of course, raised the issue of whether rabbinic courts could admit such evidence when deciding issues of paternity. A talmudic passage seems to indicate that, at best, blood types could be used to either establish or preclude

²⁴ B. Baba Kamma 16a.

²⁵ B. Pesahim 94b.

²⁶ M. Breuer, "מאמר ר' שמשון רפאל הירש זצ"ל על אגדות חז"ל" in *המעין* 16:2 (1976), pp. 1-16. I have followed (with slight modification) the translation of J. Munk in his "Two Letters of Samson Raphael Hirsch: A Translation," *L'eylah* 27 (1989), pp. 30-35.

maternity.²⁷ If so, rabbinic courts could not use blood type to either establish or preclude paternity. Indeed, such was the ruling of numerous halakhic authorities.²⁸ R. Isaac ha-Levi Herzog (d. 1959) felt otherwise. In a letter addressed in 1954 to a distinguished halakhic authority who had rejected the use of blood tests in a rabbinic court of law, Rabbi Herzog wrote as follows:

I shall not conceal from you the fact that I was practically embarrassed by your dismissal of the use of blood tests for precluding paternity, i.e., the use of them specifically to establish that A was not the father of B. How can one raise the issue of the reliability of physicians in a matter that is accepted as fact by medical science throughout the world? Nowhere did the sages state that the existence of a certain animal they mention was a halakhah received from Moses at Sinai. Nor could they have said so, for we know today that no such animal ever existed. The sages took its existence for granted, and built halakhot on that presupposition, because Aristotle posited its existence and his teaching was accepted by scholars throughout the world. How can one compare medicine in antiquity with medicine today!²⁹

III

In the light of the resources listed above, whose essential teaching (though not all the passages themselves) was available to R. Israel Lipschutz, it is all the more curious and meaningful that he preferred to take the circuitous route of adducing (and misreading) Link, rather than traversing the well-trodden, if apparently less attractive, path of recognizing the derivative nature of rabbinic science. Then again, one needs to bear in mind that Lipschutz was engaged in a polemical argument with heretics. Context may well have dictated the nature of his response.

²⁷ See b. Niddah 31a.

²⁸ See D. Frimer (above, note 17), p. 193.

²⁹ The letter is printed in D. Frimer (above, note 17), pp. 196–197.