

The Responsum on Longevity

Among the rich legacy of writings left by Moses Maimonides are several hundred letters and responsa edited and published by Jehoshua Blau.¹ Maimonides' responsum dealing with the duration of life is not included in Blau's work, however, nor is it found in previously published collections of Maimonides' letters and responsa.² This responsum, although mentioned by Steinschneider in 1879,³ did not appear in print until 1953, when Gotthold Weil of Jerusalem edited and published it in the original Arabic accompanied by a German translation and lengthy critical comments.⁴ Maimonides' responsum on lifespan was commented upon by Kaufmann, Steinschneider, and Weil.⁵ Further bibliographical, grammatical, and orthographic detail concerning it is available in Weil's Arabic and German edition. Weil's work was reviewed by Leibowitz and Muntner.⁶ With kind permission from the publisher,

1. J. R. Blau, *Moses ben Maimon Responsa*.

2. H. Freiman, *Moses ben Maimon Responsa*.

3. M. Steinschneider, "Blätter für neuere und ältere Literatur des Judenthums," p. 131.

4. G. Weil, *Maimonides: Über die Lebensdauer*.

5. D. Kaufmann, "Ein Responsum des Gaons R. Haja über Gottes Vorherwissen und die Dauer des menschlichen Lebens (Agal)"; M. Steinschneider, *Die Arabische Literatur der Juden*, p. 212; G. Weil, "Ein Unediertes Responsum des Maimonides."

6. J. O. Leibowitz, "Moses ben Maimon. *Über die Lebensdauer*"; S. Muntner, "Rabbi Moshe ben Maimon. *Über die Lebensdauer*."

S. Karger, Basel and New York, it is upon Weil's version that the present English translation is based.

The laws dealing with the fundamental principles of the Torah (Hilkhot Yesodei ha-Torah) comprise one of the sections of the first volume of Maimonides' *Mishneh Torah*. Toward the end of the tenth chapter, we find the following:

As to calamities predicted by a prophet, if, for example, he foretells the death of a certain individual or declares that in a particular year there will be famine or war, and so forth, the non-fulfillment of his forecast does not disprove his prophetic character. We are not to say, "See, he spoke, and his prediction has not come to pass." For God is long-suffering and abounding in kindness, and repents of the evil [He threatened]. It may also be that those who were threatened repented and were forgiven, as happened to the men of Nineveh. Possibly, too, the execution of the sentence is only deferred, as in the case of Hezekiah.

The full story of Hezekiah's serious illness, his supplication to the Lord, the divine promise of a prolongation of his life, and his thanksgiving psalm are recorded in detail in the Hebrew Bible (Isa. 38:1-20). Other discussions of Hezekiah's transgressions are recorded in the Talmud (Berakhot 10a). In Oxford Hebrew manuscript No. 2497 of Maimonides' *Mishneh Torah*, adjacent to the words "deferred, as in the case of Hezekiah," an anonymous commentator added the following explanation in Arabic:

The suspension of punishment results either from the fact that people repent or because a righteous person is born in their midst or because they receive their full recompense if in the meantime they can demonstrate [that they have done] good deeds. The suspension [in the aforementioned case] consists in God's having added fifteen years to Hezekiah's life.⁷

Based on this passage, there follows the responsum of Maimonides concerning longevity. The fundamental question to which Maimonides addresses himself in it is whether our lifespans are pre-determined or not. This problem had already been discussed earlier by two famous Jewish savants, Rav Hai Gaon and Rav Sa'adia Gaon, one and a half and two and a half centuries, respectively,

7. A. Neubauer, *Catalogue of the Hebrew Manuscripts in the Bodleian Library*, p. 887. MS no. 2497 is entitled "Arabic Commentaries, or Rather Notes, on Maimonides' *Mishneh Torah*."

before Maimonides.⁸ In addition, lengthy discussions on this subject are found in Islamic literature.⁹ Maimonides' approach in giving a negative answer to this question is twofold; he cites evidence from both religious and medical sources.

Medical proof that the human lifespan is not predetermined, he argues, is expressed by Galen's concept that "the reason for death is the deterioration of the equilibrium of innate heat." By this is meant the disruption of normal equilibrium between the four bodily humors, blood, phlegm or white bile, choler or yellow bile, and melancholy or black bile. These humors represent various combinations of the four basic elements that comprise the human organism: fire, air, earth, and water. Each of the latter has two qualities: fire warms and dries, air warms and moistens, earth cools and dries, and water cools and moistens. In blood, these elements are equally distributed; in phlegm or white bile, water predominates; in choler or yellow bile, fire predominates; and in black bile, earth predominates. Every human being is born with a particular combination or mixture of these elements, humors, and qualities. Any change or disruption in this equilibrium results in ill health. This important concept in ancient medicine may be a parallel to modern oxygenization of blood.

Perhaps based upon this theory, Maimonides states that causes detrimental to innate heat can be external and produce deterioration of the organs of warmth, or can cause qualitative or quantitative deterioration of the warmth itself. Each of these three possibilities is exemplified separately. Maimonides further states that external causes which disrupt normal bodily heat arise from one of six reasons: (1) through the expulsion of the innate heat from the body, (2) through its reversal internally, (3) overfilling of the body with other substances, (4) cessation of respiration, (5) deterioration of the substance of body heat, and (6) deterioration of the quality of innate heat. The final part of the medical section of the responsum deals with sudden accidental death.

8. On Hai Gaon, see Kaufmann, *op. cit.*; on Sa'adia Gaon, see Weil, *op. cit.*

9. Weil, *op. cit.*

Maimonides concludes from all the physiologic information he presents that "if a person is careful concerning these causes [of premature accidental death or the causes leading to disequilibrium of innate body heat] that we have presented . . . he will more readily attain his natural life's end." Thus, Maimonides feels that lifespan is not predetermined.

The next large body of evidence that Maimonides presents to support his contention that the human lifespan is not predetermined is gleaned from biblical and rabbinic writings. First he cites several verses from the Pentateuch (Deut. 22:8, Num. 35:11-12, Deut. 19:5-6, 20:7) dealing with commandments affecting human life. These verses prove that the termination of life is not fixed and that precautionary measures can prevent premature death. Next follows indirect evidence from five additional scriptural verses, only one of which is from the Pentateuch. These latter verses do not contain clearly prescribed commandments but are teachings, accounts of historical facts, and the like. All these religious writings, according to Maimonides, prove that a person's lifespan can be altered by certain occurrences and is not fixed and predetermined.

There are other biblical and talmudic passages which reflect the opposite viewpoint. For example, in the Pentateuch we find "Behold, thy days approach that thou must die" (Deut. 31:14) and in the prophets we find, "when thy days are fulfilled" (II Sam. 7:12). Also, in the Talmud it is written, "Though a plague last seven years, no one dies before his time" (Sanhedrin 29a).

An English translation of Maimonides' *Responsum on Longevity* follows. Words in brackets are not present in the original and were inserted to help clarify the meaning.

Question. I consider it appropriate to mention here a problem concerning which the Moses of our time [Maimonides] was once asked. His pupil Joseph ben Yehuda asked him and indeed inquired with the following words: Is the termination of man's life in this world established at a specified time at which he inevitably arrives, so that even accidental occurrences will not prematurely discon-

tinue his life or snatch him away; or do accidental happenings, if they should occur, snatch a person away and rob him of his life, if he is not on guard against them? [In other words: Does the following alternative exist?] If man is not careful and does not prepare himself by taking countermeasures to cast off these occurrences, he will not remain alive. However, if he takes preventive measures and prepares himself to offer resistance thereto, then he will remain alive and his life will last longer than it would have had he not been careful or taken any countermeasures.

Answer. For us Jews, there is no predetermined end point of life. The living being exists as long as replenishment is provided for [that amount of] its substantive moisture [i.e., bodily humors] that dissolves. Also, this moisture must remain unspoiled in its natural state, as Galen has mentioned: "The reason for death is the deterioration of the equilibrium of innate heat" [i.e., disruption of normal homeostasis between the four bodily humors]. Its deterioration occurs secondary to causes that affect bodily heat from the inside as well as causes that exert their influence externally.

Regarding the causes that affect [bodily] warmth from the inside, these occur either following the deterioration of the organs of warmth, as befalls the brain or the heart or the liver¹⁰ following a faulty mixing, either too warm or too cold; or they occur following an obstruction which happens in the brain so that the power of motion cannot make its way to the chest and thus breathing ceases. Similarly, an obstruction can occur in the lung; then the *pneuma* therein cannot reach the heart, so that the innate warmth is extinguished. Likewise an obstruction can occur in the arteries of the liver; then the warmth cannot reach it and the liver becomes cool as a result.¹¹ These things happen to [the body's] heat following the deterioration of its organs.

Concerning the deterioration that occurs to the innate heat in regard to its quality, this happens [in one of three ways: it can

10. Each of these organs is the seat of some bodily function or power.

11. This passage seems to indicate that the humors themselves are not responsible for the extinction of natural heat; rather, Maimonides is describing "solid" pathology of an obstructive nature.

occur] either as a result of excessive warmth, such as the warmth of a burning fever; then the innate heat and that which dissolves therefrom forces itself [externally]. Or that which occurs to someone who ingests a warming medication [a drug that warms the body], such as *afarbiyun* [euphorbium].¹² Or following cold, as occurs in cold illnesses like freezing [from exposure to cold], hemiplegia, or other cold illnesses or following inhibition of a cooling medication such as *ufiyun* [opium]¹³ or *bang* or *sawkaran* [hemlock],¹⁴ [all of which] produce cooling of innate [bodily] heat.

Concerning the case in which the quantity [of bodily heat] is spoiled, this occurs because of an excessive decrease or an overabundant increase in its quantity. Excessive decrease, for example, occurs to him in whom an excessive amount of one of the four basic secretions is eliminated, so that the innate heat is extinguished. Excessive increase in quantity is that which leads to death in illnesses which arise because of overfilling. The reason for this is as follows: If the body becomes abnormal because of overfilling with basic secretions or with food or beverages, whichever of these it might be, and no room remains for inhaled air to find itself a path, then strangulation of innate heat occurs as a result. This extinguishing of innate heat is what occurs, for example, with excessive overfilling of the arteries¹⁵ and ventricles of the brain. Then the innate heat only flows very slowly and is extinguished, and as a result, sudden death ensues.

These are the causes which affect innate heat from the inside. The causes which affect it externally arise from [one of] six reasons: (1) through the expulsion [from the body] of innate heat, (2) through its reversion internally, (3) as a result of overfilling, (4) as a result of the absence of respiration, (5) as a result of the deterioration of its substance, (6) as a result of the deterioration of its quality.

12. Drug no. 25 in Maimonides' *Sar Asma Al-Uqqar* ("Book of Drugs"); see Max Meyerhof, *Un Glossaire de matière médicale composé par Maïmonide*.

13. Drug no. 35 in Maimonides' *Book of Drugs*. See *ibid.*, also M. Meyerhof, "The Medical Work of Maimonides."

14. Drug no. 58; see *ibid.* and Meyerhof, *Glossaire de matière médicale*.

15. Again a nonhumoral etiology.

Expulsion [of body heat] can arise following the sudden experiencing of extreme happiness. Then the innate warmth passes to the outside of the body and streams out and dissolves itself. Thereby the outside and the inside of the body cool, and as a result death ensues. In this case, that which happens to the innate heat is somewhat analogous to the flame in a lamp when a strong wind blows thereon and extinguishes it.¹⁶ We have, for example, heard of people who succeeded in attaining an exceptionally strong, joyous emotion and thereby suddenly died.¹⁷ Further, [body heat can be dissipated] through that which assails the brain, reaches into its ventricles, and thereby expels the substance of the [body] heat. Finally, [loss of body heat can occur] through an expulsion of its mass [i.e., of the blood that carries the natural heat], as happens in the case of someone who develops a wound, or who severs one of his veins or an artery so that his blood flows out completely and the natural heat is extinguished. Then something happens analogous to a lamp when the oil flows out therefrom.

Concerning the deterioration of the natural heat by virtue of its reversion internally, this occurs in someone struck by sudden fright or fear. Then the natural heat penetrates the insides of the body all at once. Thereby, however, it [i.e., the body heat] is suppressed so that it becomes extinguished, and as a result, sudden death occurs.

16. The analogy of a lamp's flame with innate warmth and substantive moisture was used by Galen and Avicenna. Maimonides uses a similar analogy in the *Mishneh Torah*, Hilkhot Avel 4:5, where he states as follows: "One who is in a dying condition is regarded as a living person in all respects. . . . He is not to be rubbed or washed . . . until he expires. He who touches him is guilty of shedding blood. To what may he be compared? To a flickering flame, which is extinguished as soon as one touches it."

The prohibition against doing anything that might hasten death (i.e., active euthanasia) had already been enunciated before Maimonides, in the second century C.E. in the *Mishnah* (Semahot 1), and in the fifth century C.E. in the Babylonian Talmud (Shabbat 151b). Both the *Mishnah* and the Talmud use the lamp analogy.

17. See also the *Regimen of Health*, p. 25, where Maimonides states that "passions of the psyche produce changes in the body that are great, evident, and manifest to all. . . . his color dims, the brightness of his face departs, he loses stature, his voice becomes hoarse . . . his eyes sink, his eyelids become too heavy to move, the surface of his body cools, and his appetite subsides. The cause of all these signs is the recall of the natural heat and the blood into the interior of the body."

Maimonides further discusses the effects of the emotions on the body in his *Medical Aphorisms* and his *Treatise on Cohabitation*.

Concerning the deterioration of heat following overfilling, this is what occurs in someone who drowns, in that the cavities of his body are overfilled with water. Because of this, breathing becomes impossible for him, and as a result, natural heat asphyxiates and death ensues. In this case, what happens to the [body] heat is somewhat analogous to what occurs to the flame of a lamp when the oiliness in it is too great due to an excess of oil and this thereby extinguishes the flame.

Concerning the deterioration of natural heat because of the absence of respiration, this refers to the death that befalls one who is asphyxiating because the air is prevented from entering the lung. Then the vaporous waste products accumulate in the heart so that natural heat is extinguished. In this case there occurs something analogous to what happens to the light of a lamp when a thick occlusive container is inverted over it. Then vapors accumulate and the light is extinguished.

Concerning what happens to natural heat following the deterioration of its substance, this occurs [in two ways]. Firstly, following the inspiration of cold air which is mixed with harmful, malodorous gases, as is the case with gases which emanate from cadavers as well as emitted gases that rise from sewers and cesspools in which black fetid mud is to be found.¹⁸ Through this, the substance of the natural heat deteriorates. Thus, many people have died suddenly therefrom in that these [gases] arose from sewers and wells in which the brick dust [i.e., mud, dirt] had putrefied. In this case there occurs something analogous to that which happens to the light of a lamp in that it is extinguished when it is placed among strong fumes or at a site where many gases arise. [Deterioration of the

18. Maimonides also speaks of the quality of inspired air in chapter 13 of his *Treatise on Asthma* (see above, chap. 2). He gives similar advice on clean air in his *Regimen of Health*, as follows: ". . . the finer the pneuma is, the more it is altered by changes in the air. . . . In the city, because of the height of its buildings, the narrowness of its streets, and all that pours from its inhabitants and their superfluities, their dead, the carcasses of their animals and the corruption of their decaying food, the air becomes stagnant, turbid, thick, misty, and foggy. The pneumas change accordingly . . . also endeavor to rectify the air and dry it with good aromatics, vapors, and fumigation."

substance of natural body warmth can also occur] following the sting or bite of a poisonous animal. Then the poison flows through the person's body, disseminating therein and thereby deteriorating the substance of the natural warmth so that the person dies as a result.¹⁹

Concerning that which deteriorates natural heat by deteriorating its quality, this occurs [in two ways]. Firstly, if it [bodily warmth] becomes extremely hot—the same occurs if it dissolves or is excessively cooled—as in someone who remains too long in a very hot bath or in the sun in an unusually warm summer. In this case, there occurs to the natural heat something analogous to what happens to the flame of a lamp when it is placed next to a strong fire or in an unusually hot sun, namely, that it is extinguished.²⁰ Secondly, when it [bodily warmth] is excessively cooled, as occurs to many people who travel during cold [weather] and when snow falls on them, they freeze, then death ensues following the extinguishing of natural heat. In this case, what happens to natural heat is somewhat similar to what occurs to the fire in the lamp when it is placed in extreme cold, namely, it goes out.

Moreover, death sometimes afflicts a person by the latter's contact with a hard object through cutting, as is the case of a sword or a sharp iron instrument, so that the tightly joined structures of the body are separated.²¹ Or [sudden death also occurs] through a blow, as in the case of stones or other hard objects when they hit the body of a living being, whether they strike with force or fall on the [person] from a high place.

If the circumstances of the case are as we have described, then [the following is certain]: If a person is careful concerning the

19. See also S. Muntner, *Maimonides' Treatise on Poisons and Their Antidotes*.

20. The analogy here is unclear. Maimonides does not explain why a lamp should be extinguished if placed next to a hot fire.

21. In medieval medicine, the term "separation of the connection" includes all illnesses and occurrences in which the tightly bound structures of the skin, muscle, or bone are separated (e.g., gaping wounds, bites, fractures). Avicenna speaks of these illnesses and their remedy in the *Canon* I, 75 and 217.

causes [of premature accidental death or those leading to disequilibrium of innate heat] that we have presented, then such accidents will not snatch him away [from life], and he will more readily attain his natural life's end.

We will prove what we have said by two types of evidence, of which the first [concerns] proofs from religious laws and the second [pertains to] proofs taken from nature.²² We will first cite the proofs from religious commandments because of their prominence and importance, and because they represent the goal at which a person arrives through logic after studying the introductory sciences, i.e., mathematics, physics, and metaphysics. These [religious laws] also lead to [eternal] happiness in the world-to-come.

It is written: "When you build a new house, you should make a parapet for your roof so that you bring not bloodshed upon your house should any man fall therefrom" [Deut. 22:8]. This phrase proves that preparing oneself, and adopting precautionary measures—in that one is careful before undertaking dangerous enterprises—can prevent their occurrence.²³ If, indeed, preparation were not efficacious in guarding against mishaps, then this commandment would be meaningless because it would not prevent any damage from occurring. If, on the one hand, it has already been determined that the person in question will fall from this roof, then the parapet serves absolutely no purpose; and if, on the other hand, it is only there for frivolous play, then it provides no advantage. Since we see, however, that God specifically requires the parapet, it is clear that preparing oneself and taking precautionary measures do prevent [mishaps]. This then represents a refutation of those who

22. The actual sequence of evidence presentation is just the opposite; proofs from the laws of nature precede the discussion of the religious laws. For further comment on this point, see G. Weil, *Maimonides. Über die Lebensdauer*, pp. 23–28. As was mentioned at the beginning of the chapter, the entire responsum is based on the following words in the *Mishneh Torah*: "or [the execution of the sentence] is deferred, as in the case of Hezekiah." Therefore, according to Weil, the scribe or copyist reversed the order of the evidence presented by Maimonides, placing the medical before the religious proofs in order to begin and end the responsum with the above key words. An alternative explanation is that the scribe was writing from memory and erroneously or accidentally reversed the sequence.

23. Although the grammatical construction of the text is incorrect, the meaning of the sentence is clear.

state that life in this world [continues] up to a fixed, predetermined time.

Further, concerning the establishment of the six cities of refuge as an asylum [for the accidental manslayer] from the avenger of blood, it is stated both in Numbers 35:11–12: “And you shall appoint yourself cities to be cities of refuge for you. And the manslayer who kills any person through error shall flee there. And the cities shall be unto you for refuge from the avenger, that the manslayer not die, until he stand before the congregation for judgment”; as well as in Deuteronomy 19:5–6: “. . . he shall flee unto one of these cities and live, lest the avenger of blood pursue the manslayer . . . and slay him.” These cities have thus been ordained as sites of refuge to which the manslayer can flee so that the avenger of blood will not kill him. Had he [the accidental manslayer] a predetermined moment for his life’s end, namely, to die at the hands of the avenger of blood, then what purpose would the establishment of cities of refuge serve, since the avenger of blood would be predestined to slay him [the accidental manslayer]? Since we have received the commandment to establish these confined areas, however, we know that it is sensible to prepare oneself, in order to protect against harm.

Similarly, where the war leader addresses the people in Deuteronomy 20:7, it is written: “And what man is there that has betrothed a wife, and has not taken her? let him go and return into his house, lest he die in the war and another man take her. . . . What man is there that is fearful and soft-hearted? let him go and return unto his house, lest his brethren’s heart melt as his heart.” This proves that his remaining at home is for him a precautionary measure against the awaited occurrence of death. Thus we see that the adoption of safety measures is of value to protect against harm.

Another precise proof is our belief in the proclamation [in Jonah 3:4, where because of the faults of the city’s inhabitants, it is decreed]: “Forty days more and Nineveh shall be overthrown.” After the inhabitants repented, however, God forgave them, as is stated in Jonah 3:5: “And the inhabitants of Nineveh believed in God, and they proclaimed a fast and put on sackcloth”; as well as

Jonah 3:10: “And God saw their works, that they turned from their evil path, and God repented of the evil which He said He would do unto them, and He did it not.” If their life’s end had been firmly predetermined at the conclusion of forty days, then penitence would not have saved them and they would have perished. If, on the other hand, their life’s end was firmly predetermined for the time which they [actually] reached after they repented, then their disobedience [to God’s commandments] did not harm them and they would not have been coerced or required to do penitence. This too is evidence that the end of life in this world is not firmly established in advance, so that accidental occurrences do not prematurely sever it.²⁴

That which we expound [above] we have also found in the verse: “Fear of the Lord prolongeth days, but the years of the wicked are shortened” [Prov. 10:27]. Let no doubt arise on this account that in this world the life of the wicked can also be prolonged and that of the righteous shortened. As the sages have already stated: “The righteous man who prospers is a completely righteous man; the righteous man who is in adversity is not a completely righteous man. The wicked man who is in adversity is a completely wicked man; the wicked man who prospers is not a completely wicked man” [Berakhot 7a].²⁵ This means that the righteous man’s bad deeds are the cause of his misfortune, and if all his deeds had been perfectly [proper], they would have protected him from the adversity. The same applies to the wicked person. Had he no good deeds to point to, misfortune would not have been kept from him.

It also states: “He that resides in this city shall perish by the sword and by the famine and by the pestilence; but he that goes out and falls to the Chaldeans that besiege you, he shall live” [Jer. 21:9]. Thus, one sees that their deaths are dependent upon their remaining in this city and their remaining alive is dependent upon their going out therefrom. This demonstrates, however, that there is no

24. The last phrase is unclear.

25. The actual text in the Talmud has “the wicked man who prospers” before “the wicked man who is in adversity.”

firmly determined time for death. Moreover, the elimination of harmful things is efficacious in prolonging life, whereas the undertaking of dangerous things is the basis for shortening life.

For this reason it also states regarding certain laws: "That your days may be prolonged and the days of your children" [Deut. 11:21]. This proves that [one's] occupation with commandments [of the Bible] can retard the expiration of life.

So too can we explain His [God's] statement to Hezekiah: "I have heard your prayer, I have seen your tears: behold, I will add fifteen years unto your days" [Isa. 38:5]. After he [Hezekiah] repented—he had transgressed the law pertaining to procreation [by not fulfilling it], because he had seen by the Holy Spirit that, in the future, unworthy offspring would issue from him; he then repented, however, and for this reason [the decree against him] "thou shalt die and not live" [Isa. 38:1] was withdrawn—God added to his life.

We will now return to our subject matter to keep this digression from becoming too lengthy. This is because the analysis by the highly respected teacher is complete; we have nevertheless extracted more than amply therefrom regarding the explanation of the words "or [the execution of the sentence] is deferred, as in the case of Hezekiah."

Miscellaneous