

BIOMAGNETIC EFFECTS IN THE LIGHT OF THE FORMERLY STRONGER GEOMAGNETIC FIELD

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There are now many data on effects of magnetic fields on living beings. Here these data are considered along with information which shows that the Earth's magnetic field is decreasing. The greater strength of field in the past may correlate with greater lifespans, such as those recorded in the early part of Genesis.

Introduction

It has been demonstrated through analysis of available data that the Earth's magnetic field is decaying exponentially with time, and that accordingly it has been exponentially greater in the past.¹ What effects a greater magnetic field might have had on living systems is purely speculative. Yet experiments such as those reported in the two volume work, *Biological Effects of the Magnetic Fields*² may provide an experimental basis for further study.

Experiments performed by Dr. Jenő Barnothy indicate retardation of aging and stabilization of the genetic code (via proton tunneling) as magnetic effects.³ Other investigators have observed the existence of a magnetic threshold, i.e., an effectual field strength above which magnetic effects are essentially constant and below which the effects are absent. Moreover, threshold values vary according to the life system under study.

Experiments and Results

The Barnothy experiments were performed with C3H-strain virgin female mice which were 70 days old. Ten were subjected to a homogeneous field⁴ of 4200 Oe, while five others were kept in identical dummy magnets, and 25 others were kept in standard plastic cages. All of the mice were removed from the test conditions after four weeks and their activity was monitored electrically from age 320 days to 509 days "at which time 50% of the treated and 60% of the controls were dead or had developed spontaneous cancers."⁵

Dr. Barnothy recorded that between the ages of 430 days and 509 days that food consumption was about 26% lower for the magnetically treated group. "This finding, together with higher activity, would suggest a better energy metabolism of the treated mice."⁶

The cause for higher activity and lower food consumption of the treated mice is indicated by a remarkable photographic comparison (Figure 1) of a magnetically treated mouse and a mouse kept in an identical dummy magnet, both at age 400 days.

The appearance of the treated mouse is far younger, its fur is smooth, and no wrinkles are seen. The difference in appearance and in movements at this age was so striking that when the treated were mixed with the untreated, any person even unfamiliar with mice could correctly separate them. During the next three months the difference in appearance gradually decreased and eventually vanished.⁷

A second experiment of identical procedure was performed except treatment began at age 270 days instead of at 70 days.

No difference between treated and control groups, either in appearance, in activity, or in food consumption, was observed up to their highest age. This experiment would indicate that treatment at a full grown age, contrary to treatment during youth, does not have an effect upon the accumulation and total number of genetic code errors.⁸

More recent contributors to the field of biomagnetic research have observed

the existence of a threshold field strength, below which the field is ineffective. This is indicated by investigations on respiration rates, alkali ion excretion, and on the mitosis rate of liver tissues . . . the value of the limiting field strength seems to change with the parameter under investigation. Moreover, above this threshold value the effect is not proportionally enhanced in stronger fields.⁹

Experiments supporting the existence of a magnetic threshold strength are published in Volume 2 of *Biological Effects of Magnetic Fields* under the following titles:

Effects of Magnetic Fields on Cellular Respiration by Elton S. Cook, John C. Fardon, and Leo G. Nutini.¹⁰

"Changes in Sodium and Potassium Content of Urine from Mice Subjected to Intense Magnetic Fields" by G. D. Hanneman.¹¹

"Effects of the Magnetic Field on Internal Organs and the Endocrine System of Mice" by M. F. Barnothy and I. Sumegi.¹²

Discussion

The salutary effects on mice reported by Dr. Barnothy were not the result of magnetic stress.¹³ However, it should be emphasized that stress effects were observed in the treated mice, though they have been omitted from this discussion. Furthermore, experiments showing the existence of a threshold field strength (different for each parameter) have not, to date, been associated with retardation of aging nor with a stabilization of the genetic code.

It is hoped that this review will stimulate further investigation of biomagnetic effects with a view to possible incorporation into the creation model. In light of the historically stronger geomagnetic field, and with reference to the preceding experiments, it is felt that the study of biomagnetic effects may be a promising area of creation research.

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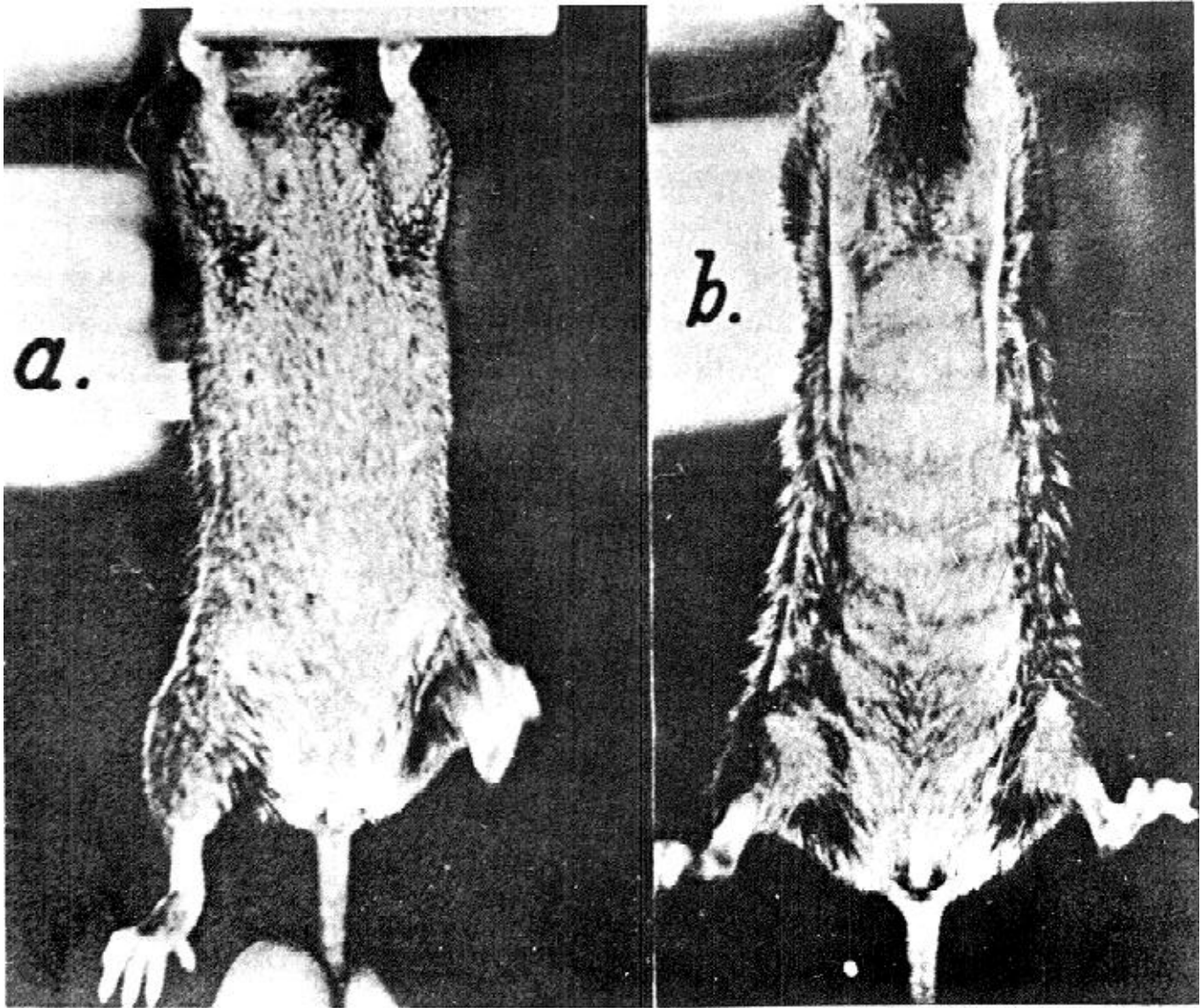


Figure 1. C-3H-strain female mice at an age of 400 days. (a) Treated 11 months earlier in a magnetic field of 4200 Oe; (b) control (kept in identical dummy magnet) of the same age. From Glasser, Otto, Editor. 1960. *Medical Physics*, Volume 3. Copyright © 1960 by Yearbook Medical Publishers, Inc., Chicago. Used by permission.

Summary and Interpretation

A limited hypothesis may be formed on the basis of the aforementioned data. Since the earth's magnetic field was greater in the past, then one might expect that the previously discussed magnetic phenomena were in effect in the Earth's biosphere at one time. These phenomena would cause a retardation of aging and a stabilization of the genetic code for some species while at the same time, owing to a difference in threshold values, might leave others unaffected. The proposed existence of a magnetic threshold would explain also the absence of stabilizing magnetic effects today.

References

- ¹Barnes, Thomas G. 1973. *Origin and destiny of the Earth's magnetic field*. Institute for Creation Research, San Diego, California.
- ²Barnothy, Madeline F., Editor. 1964. *Biological effects of magnetic fields*. Volume 1. Plenum Press, New York. Also Volume 2, 1969.
- ³*Ibid.*, Volume 1, pages 83-87.
- ⁴Note that 4200 Oe (oersted) is approximately 8400 times the present average strength of the Earth's magnetic field.
- ⁵Barnothy, *Op. cit.*, Volume 1, p. 84. This quotation and all following quotations are used by permission.
- ⁶*Ibid.*, p. 86.
- ⁷*Ibid.*
- ⁸*Ibid.*, pp. 86-87.
- ⁹Barnothy, *Op. cit.*, Volume 2, p. xii.
- ¹⁰*Ibid.*, cf. pp. 133-134.
- ¹¹*Ibid.*, cf. p. 75.
- ¹²*Ibid.*, cf. Table IV, p. 118.
- ¹³Barnothy, *Op. cit.*, Volume 1, p. 88. (See paragraph 5)