

ENGLISH ABSTRACTS

MATHEMATICAL FOUNDATION FOR A LOGICAL MODEL OF THE TALMUDICAL HERMENEUTICS *KAL VACHOMER*, *BINYAN AV* AND *HATZAD HASHAVE*

Azriel Laufer

This article is a continued development of the logical model introduced by Abraham, Gabbay and Schild in B.D.D. 23 and 24. The article defines this logical model by mathematical structure of Partially Ordered Sets and uses it in order to solve some difficulties that arise by using the logical model. Furthermore, the dimension of the logical model is well defined and some mathematical theorems about it are introduced in the article. At the end of the article, the logical model and the mathematical theorems are used to study a Talmudic *Sugya* about acquisition procedures in levirate marriage.

THE STUDY OF SECULAR KNOWLEDGE IN THE THOUGHT OF R. MESSER DAVID LEON

Eli Gurfinkel

R. Messer David Leon (ca. 1470-1530) examined the proper attitude to secular fields of knowledge, including the humanistic, in several places in his writings. We possess lengthy texts containing the discussions of this question by several important fifteenth- and sixteenth-century thinkers, while those of Messer Leon are among the most fundamental and detailed.

Messer Leon returned to this question many times to examine different aspects of the issue, which continued to occupy him throughout his lifetime. The current article surveys the discussions in his various works and sets forth the educational and cultural background that fashioned his approach and raised his questions. I describe the development of his views and the methods that he used to interpret authoritative sources, and seek to place his notions on this question in the context of the thought of his time.

AZARIAH DEI ROSSI – FERRARA ITALY, 1570 EARTHQUAKE,
AND PRESENT-DAY GEOLOGY

Micha Klein

The geographic distribution of Jews in most parts of Italy yielded many descriptions of earthquakes occurring in Italy written in Hebrew. The most well-known and elaborate description is that of the Ferrara 1570 earthquake, written by Azariah dei Rossi.

Azariah dei Rossi described the Ferrara earthquake in his book *Me'or Enayim*, published in 1573, in Mantova, Italy. The book was boycotted by several Jewish scholars, mainly because of Azariah's views concerning Jewish chronology that are expressed in his book.

Many of his descriptions display familiar present day seismic phenomena. The seismic phenomena analyzed in this article are: Earthquake light, aftershocks, foreshocks, earthquake swarm, soil liquefaction, time of earthquake occurrence during the day, and gas rising during earthquakes.

USING THE SCIENCE OF THINKING FOR UPGRADING
TORAH STUDY: A DEMONSTRATION ON THE TOPIC OF THE BASIS
OF HALAKHIC AUTHORITY – MISHNAH ROSH HASHANA 2, 8-9

Daniel Raviv

The article demonstrates the systematic use of higher-order thinking for a unique approach to Mishnah text study. A model for text analysis using the science of thinking to systematically upgrade Torah study is suggested.

The uniqueness of this particular Mishnah is reflected in its exceptional content, as it deals with the issue of the basis for Halakhic authority. Furthermore, it includes a stylistically unique description of a historical-religious process. This unique style is reflected through the presentation of a dialogue of negotiation, which typically characterizes Talmudic discussion that culminates with a final ruling pertaining to the issue in question. This allows for an optimal demonstration of the use of research tools based on the science of thinking. The choice of a unique Mishnah text was required so as to highlight the added value of using systematic higher-order thinking, over and above traditional in-depth text analysis which is somewhat lacking the systematic-scientific element.

OVERT REPROOF AND CONCEALED LOVE:
THE RABBINIC OUTLOOK ON PSYCHOTHERAPY

Avraham Gershon Hoffman and Seymour Hoffman

Many leading rabbis tend to relate toward psychology, psychologists and psychological treatment with reserve, distrust and, at times, extreme criticism. This brief article demonstrates that the dominant view among the rabbis seems to be that psychological treatment is permitted and even encouraged as a mitzvah, on condition that treatment is carried out by a therapist whose views and values are not inconsistent with those of the Torah.

61-ROW TABLE AS A TOOL FOR CALCULATING THE PREVALENCE
OF A SEQUENCE OF *SIMANEI HASHANA*

Eran Raviv

The year 5775 begins a sequence of five consecutive years in which four of them have Passover occurring on Saturday. This article examines the phenomenon and presents a computational method for finding its prevalence. The calculation method is based on considering the “Table of 61 Rows” as a table that represents 36,288 19-year cycles, consisting of 689,472 years, which form a complete cycle of the Jewish calendar.

As a result, the “region” that the desired phenomenon occupies in relation to the overall area of the table directly yields the frequency of the desired sequence. In the Appendix we present a proof that the area of the 61-Row Table is in complete correspondence to the cycle of new moons in the Jewish calendar – 689,472 years.

The method demonstrated in the article can be generalized to any desired sequence of *simanei hashana*.