



*The Tikvah Center
for Law & Jewish
Civilization*

The NYU Institutes on the Park

THE TIKVAH CENTER FOR LAW & JEWISH CIVILIZATION

*Moshe Halbertal
Professor J.H.H. Weiler
Directors of The Tikvah Center*

Tikvah Working Paper 06/11

Maoz Kahana

**The Scientific Revolution and Jewish Jurisprudence - Halacha,
Medicalization and Alchemy, Hamburg 1736**

NYU School of Law • New York, NY 10011
The Tikvah Center Working Paper Series can be found at
<http://www.nyutikvah.org/publications.html>

All rights reserved.
No part of this paper may be reproduced in any form
without permission of the author.

ISSN 2160-8229 (print)
ISSN 2160-8253 (online)
Copy Editor: Danielle Leeds Kim
© Maoz Kahana 2011
New York University School of Law
New York, NY 10011
USA

Publications in the Series should be cited as:
AUTHOR, TITLE, TIKVAH CENTER WORKING PAPER NO./YEAR [URL]

**THE SCIENTIFIC REVOLUTION AND JEWISH JURISPRUDENCE –
HALACHA, MEDICALIZATION AND ALCHEMY, HAMBURG 1736**

By Maoz Kahana

A

At the start of his book “The Scientific Revolution” Steven Shapin declares: “There was no such thing as the Scientific Revolution and this is a book about it”. Variations of this statement by historians of science are nowadays seen as conventional. The “scientific revolution,” which was depicted by mid-twentieth century historiography as a central component in the world’s progression from the dark middle ages toward the free-thinking, empirical and rational modern era, today seems more of a historiographical by-product of the enlightenment than as a reliable historical description. Rather than one long-term revolutionary movement whose endpoint is established in advance, we tend to view the early modern era as typified by a broad range of natural research projects or, in contemporary terms, “natural philosophy”, involving different methods, which were formulated and combined in highly diverse cultural, political and theological contexts. Alchemy, Puritanism, and even a rearguarded Catholicism all had important roles to play in the scientific knowledge-making process, no less than Cartesian rationalism or revolutionary Spinozism.

I wish to use this diverse picture as a starting point for our current discussion, which will focus on the encoding of the particular form of scientific medical knowledge within the framework of the Jewish halachic tradition, from the beginning of the eighteenth century onwards.

I would like to argue that these encoding methods are placed under increased pressure and halachic adjudicators face a profound dilemma when the self-conception of scientific knowledge changes. This “change” is not homogeneous, and the ways in which it relates to the particular cultural environment of the Jewish European minority group are likewise diverse. My assessment is that the age-old relationship between “rabbi” and

“doctor” undergoes a profound upheaval in the early modern era, and that different solutions for this upheaval leads to formation of various patterns of “modernity”.

B

Our first “ protagonist” is the unique personality of the 18th century German Rabbi, Rabbi Jacob Emden, known as the “Yaavetz”. In 1736, the Yaavetz wrote his first polemical essay (one of dozens), entitled "A Critical Treatise" (“Igeret Bikoret”). What is the nature of this criticism and who are its addressees? One focus of this multifaceted work is the pretensions of the new scientific method. It reads as follows:

But the doctors have no clear knowledge for judging between sickness and health, between what is possible and impossible, other than **experience**, they do not avail themselves of logical proof [“mofet”] nor verified tradition [“kabala”]. Their only ability is the use of mouth and eye, assumption and hypothesis, which will fail through any tiny mistake.

The experiments will also mislead, even ten times as much, in imaginations ten times more suspicious. Hence their heart was turned away; now they blame the ancients... whose fundamental principles they have crushed and trampled with their legs... they revolt against Aristotle and kick out at him, they despise Galen and mistrust his words; they have chosen new paths, never dreamed of by their ancestors. They have separated into many factions and numerous camps. At any time they will change their assumptions, and their beliefs are diverse and bizarre.

The empirical methods of medical knowledge are here portrayed in a satiric vein. Their feeble power depends on rhetoric (“mouth”) and observation (“eye”); as well as empirical tests and assumptions – hypotheses. This new, suspect method is governed by the capricious nature of these senses, which leads to numerous mistakes, in absolute contradiction to reliable knowledge, which should be achieved by means of an older, accepted tradition, or at least by logical proof. This striking conscious return to a medieval, seemingly neglected method, is combined with an unexpected yearning for the founding symbols of this kind of “old” medicine. Aristotle, Galen and Avicenna (mentioned later in this section) symbolize a “traditional,” “ancient” knowledge. Their wisdom does not depend on the vagaries of the revolutionary transformations caused by

the movement of science from the honored philosophy department in the academic ivory tower to the “messiness” of the laboratory and its unexpected turns. The “old world” is characterized by the reciprocal honor and harmony between medical knowledge and Hakachic authority. The revolutionary outbreak of “new science” shatters this “status quo”, divides scientific knowledge itself, and collapses its pretensions to objective knowledge.

Thus the Yaazetz does not agree with Shapin’s opening statement. From his point of view in early 18th century Germany, the scientific revolution unequivocally occurred, and it threatened the stability of the traditional relations between medical knowledge and Jewish halachic jurisprudence. The solution offered by the Yaavetz in his treatise is comprised of several layers. The first, most prominent layer consists of a polemic declaration of a clear methodical separation. The Yaavetz draws a binary line between the human source of [?] scientific knowledge in conjunction with the true understanding of nature possessed by the “Divine [Jewish] sages” of the Talmud and Mishna periods. This theme depicts the ancient halachic sages as hidden bearers of esoteric and pristine medical Divine knowledge. This thematic separation is supposed to present the Jewish halachic system as an autonomic structure, purified and as separated as possible from any alien sources of knowledge, and liberated from the fear of the revolutionary new science.

The Yaavetz’s interlocutors in this polemical debate layer are unnamed heretical “pagan doctors”. A close examination of Altona of the fourth decade of the 18th century, the Yaavetz’s place of residence, might reveal the identity of these “pagan doctors”. The well-known relative tolerance of the Danish crown made Altona, as Jonathan Israel has demonstrated, a great paradise for religious revolutionaries and intellectuals who wished to flee the holy German authority. In these circumstances a half-secret sect of Spinozian physicians flourished in Altona (as in many places in the German-Dutch regions). These Spinozian physicians belived in a “Iatromechanic ” medicine - medical system based on the mechanistic method of the Dutch Philosopher-Doctor Herman Boerhaave. The Yaavetz’s theory of separation appears as the antithesis of this Deistic,

possibly- atheist radical approach, which this circle attributed to the new medical knowledge.

C

A closer reading of "Igeret Bikoret" uncovers additional layers. Doubtless, the Yaavetz himself did not accept as clear a divide between the fields as he claimed. Nature itself, he wrote, is not as material and static as it might seem. Its "amorphous [primeval] material" is ever-changing from one appearance to another, constantly transforming its structures". What is the meaning of this "transformation"? In 1737 the Yaavetz wrote to his discipline, Jacob Wolf Ginsburg, the first Jew to attend the medical faculty of Gottingen University. The Yaavetz asked him whether he knows someone in his faculty in Gottingen proficient in the alchemical art of "division of the elements", and whether can he find in the university's immense library any ancient alchemical books written in the Hebrew language. The inspiration for these unusual requests is apparent in the Yaavetz's own words:

I have observed close-at-hand one printed German book which named an ancient [sage] from our nation, which they [the non-Jews] consider highly valuable. They say they have a number of Hebrew authors who are reckoned highly versed in this wisdom. This is a great wonder – how did we completely forget the existence of such authors?

The German book he mentions is to be identified, to my opinion, with "Abrahami Eleazaris Uraltes Chymisches Werk",- two comprehensive volumes on alchemy which had recently been published– in 1735 in Erfurt – by a German scholar named Julius Gervasius, who claimed that the book came from the manuscript of an unknown medieval Jewish scholar called Abraham Elazari.

The Jewish character of alchemy has deep roots in the Christian European tradition. This is, in absolute contradiction to the Jewish point of view, as indicated by the Yaavetz's comment, "how did we completely forget it?"The Yaavetz warmly adapts this "view from the outside", and contacts his student in Gotingen in order to broaden his knowledge of alchemy. The Yaavetz's interest in alchemy reveals an additional layer of

argument in "Igeret Bikoret," composed in the exact same years. The Yaavetz saw alchemy as an authentic, forgotten medical art, Jewish in origin. By contrast to materialistic science and the brutal practice of the surgeons, alchemy is based on a spiritual approach, which deals with "amorphous primeval matter" and holistic remedies.

Indeed, Alchemy was influential and popular in the contemporary German context. Alchemists dealt with the transformation of metal to silver, as they searched for the alchemical "philosopher's stone" with its promise of eternal life, but they also practiced a vast variety of experiments investigating the medical effect of different materials. This multidisciplinary feature of alchemy made it the basis of hermetical and magical practices as well as for its modern non-metaphysical "daughter" – the discipline of chemistry. In opposition to the attempts to "purify" and professionalize academic medicine, thus shifting it away from folk medical practices, alchemy presented a popular alternative with deep cultural roots and important achievements. The Yaavetz views alchemy as an important alternative to revolutionary materialistic science. Supported by this framework, Halacha can preserve its relationship with medical knowledge even and indeed precisely now, in the modern era.

The Yaavetz's interest in alchemy extended far beyond the thirties, when the "Igeret Bikoret" was written. In his massive, multifarious works one can find extensive use of alchemical terminology in various contexts. He has recourse to alchemy in order to resolve hermetical and Kabbalistic structures, explain "Maase Bereshit," "the Act of Creation," describe dynamics in his contemporary Jewish society, and even to explain the complex connection between the crises of the traditional society in the modern world and the approaching universal salvation. In his halachic treatise "Mor Ukzia," the Yaavetz explains that in contrast to a "normal" academic doctor, whose knowledge is transient and uncertain, someone who sees a real alchemist should recite the traditional halachic formula ברוך שחלק מחכמתו לבשר ודם – Blessed is He [God] who shared His wisdom with mortal creatures.

D

Let us return to "Igeret Bikoret". This broad polemical treatise also had two real addressees, identified by name. The specific halachic question which initiated the discussion dealt with the definition of a "Pzua Daca", specifically - a man whose ovum had been damaged by disease, with doctors claiming that the surgery they had performed has cured him and restored his capability to reproduce. In sharp contrast to the Yaavetz's attitude was that of the head of the local Hamburg Kloyz, an old scholar named Rabbi Samson Bloch, also known as Rabbi Samson Hasid. The pronounced medicalization of the halachic discourse in Rabbi Samson's short response is both highly striking and jarring. Rabbi Samson documents no less than seven precedents for the medical protocol in question, and cites two detailed doctors' opinions. In Rabbi Samson's response, even the halachic discourse itself is subsumed into the field of medicine. "Everything depends on the wisdom of nature," claims Rabbi Samson, who portrays the different halachic traditions as disputing scientific medical questions, before adding honestly: "the more we can force our traditions in line with the physician's opinion, the better" .

In this battle between different sources of knowledge, medical science has gained a categorical supremacy. Rabbi Samson's response documents a powerful upheaval in the management of knowledge within halachic literature. Not only is medical information internalized within his jurisprudence, but also, and centrally, it is the **medical viewpoint** which informs the halachic discourse and the relations between the diverse sources of information. The new pretensions of the transformative power of the new science are internalized into the halachic mechanism, without being presented as threatening or revolutionary. The attitude of the Yaavetz finds its diametrical counterpart in that of Rabbi Samson.

The third figure in this specific discourse was the official rabbi of Hamburg-Altona - Rabbi Jehzekel Ketznelbougen. His halachic response documents a very similar approach, although it lacked the revolutionary effect of Rabbi Samson's statement. Rabbi Jehzekel uses medical information unambiguously as a source and a distinct factor in halachic scholasticism, without directly reducing medical knowledge to the

halachic discourse. Rabbi Samson's revolution is thus moderated within scholastic, halachic literature through a complex, creative move.

E

These three halachic figures offer us at least three different solutions to the profound conceptual tension caused by the transformations of scientific understanding in early modern Europe.

The community rabbi appears like one who has borne on his shoulders the old aged continuous responsibility for the intricate relationships between "Rabbi" and "physician", as well as its basic theoretical framework – the traditional management of medical knowledge in halachic literature.

The Yaavetz, by contrast, is a fascinating example of one whose deep-seated attraction to various "wisdoms" led him to a self-taught mastery of languages, and a deep abiding interest in the European outlook on Jewish society. He derives from this unusual perspective both his revolutionary anti-traditional decoding of the new scientific knowledge as well as his support of the alchemical alternative. This double outlook sets him on the path toward a fundamentalist clash, involving a categorical, and indeed novel, separation between the material world of nature and the craft of Jewish halacha, as well as its alchemical counterpart.

More intriguing than either of these is the mysterious, fascinating figure of Rabbi Samson Bloch Hassid. The Jewish Kloys, this pious man residence was a unique, academic-like institution in Jewish society, hierarchical and financially independent from the local Jewish community structures. It is precisely the professional, isolated, autonomic nature of this institution that made it (as I have tried to demonstrate in another context) a central "importer" of new methods of thinking and encoding structures from the general European environment of early modern Europe.

Far more important than these three solutions in the particular Jewish context of 18th century Hamburg and Altona is the abyss – the conceptual earthquake – we can

hear through this discourse, regarding the forms of medical knowledge and the power relations between “rabbi” and “physician” in halachic culture. All three models mentioned today underwent significant developments and variations in modern halachic literature, but the essential question mark which placed here has received far more than three answers. This crucial essential gap is an important factor in the creation and formation of knowledge systems and encoding forms, as well as collective identities and processes of self-understanding, in modern halachic literature.