



Association of Orthodox Jewish Scientists  
1011 Moss Place  
Lawrence, N.Y. 11559  
(718) 969-3669  
intercom@aojs.org  
www.aojs.org

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Association of Orthodox Jewish Scientists

# INTERCOM

Volume XXVIII, Issue 1

Summer 2009

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# Association of Orthodox Jewish Scientists Shabbos Nachamu Convention

July 31st-August 2nd, 2009  
Heritage Resort, Southbury, CT

**Catering  
Provided by  
Nesher  
Catering**

**Singles' Program  
directed by  
Naomi Mark, LCSW**

### Featuring:

- ✦ Allen J. Bennett, MD, FACP
- ✦ Rav Nachman Cohen, PhD
- ✦ Rav Tsvi Blanchard, PhD
- ✦ Rav Shlomo Goldberg, PhD
- ✦ Zev Greenblatt, BS
- ✦ Chana Klein, MSED
- ✦ Heshy Klein, MD
- ✦ Jared Plitt, DDS
- ✦ Avi Rosenberg, PhD
- ✦ Marcy Schaffer, PhD
- ✦ Sylvan Schaffer, JD, PhD
- ✦ Robert Schulman, MD
- ✦ Susan Schulman, MD
- ✦ Rav Moshe D. Tendler, PhD
- ✦ Stuart Weinberg, MD
- ✦ Rav Tzvi H. Weinreb, PhD
- ✦ Jeremy Wertheimer, PhD
- ✦ and many, many more!!!

Experience a stimulating **Shabbos Nachamu Weekend with the AOJS**...Attend thought-provoking lectures on the most current topics of science and halacha delivered by the experts in those fields...Or just sit back & relax, bask in the beautiful scenery and crisp New England air of the **Heritage Hotel**.

Nisan Hershkowitz, DDS  
*Convention Chairman*



Photography by, Leah S. Harris

**Convention Theme:**  
**A Torah-Informed Evaluation of  
Darwin's Theory of Evolution**  
*Plus much, much more!!!*

Designed by adajim@aojs.org

*We hope you enjoyed!  
We'll see you next year!*

תורה

Association of Orthodox Jewish Scientists

# INTERCOM

ומדע

Volume XXVIII, Issue 1

## Intercom Staff

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**From the President's Desk**

Greetings,

Welcome to the forty-ninth Annual Summer Convention of the Association of Orthodox Jewish Scientists being held at the Heritage Hotel in beautiful Southbury, Connecticut.

I hope you have an inspiring Shabbat Nachamu weekend with us.

Much work goes into the planning and execution of a successful weekend. My thanks to the committee and its various members who put in endless hours to insure that the weekend comes off with minimal inconvenience to our guests while assuring an excellent program.

The program is varied, stimulating and diverse. The main complaint I hear over the years is that "I wanted to attend more lectures, but they were running concurrently and I had to pick one when I wanted to attend three!" That's why we are here again.

To those who are "osek betzarchei tzibur be'emunah" the continued existence of the AOJS is to your credit.

To those of you who aren't members of the AOJS yet, I extend my invitation to you to join the premiere or-

ganization dedicated to the exploration of the *halachic*/scientific interface, to promoting understanding of how science serves the Almighty in His world and to disseminating this vital information to the public allowing us to fulfill our obligation "*lehagdil Torah u'lehadira.*"

Allen J. Bennett, MD, FACP  
*President, AOJS*

**A Definition of Holiness:Kedusha and the Scientific Method**

The scientific method is defined as principles and procedures for the systematic pursuit of knowledge involving the recognition and formulation of a problem, the collection of data through observation and experiment, and the formulation and testing of hypotheses (Merriam-Webster Online Dictionary.) This empirical approach to epistemology can even be utilized in situations where observable evidence is not available as in Einstein's famous "thought experiments" in relativity.

The Gemara relates that Rabbi Yehuda haNasi, Prince of Israel and redactor of the Mishna, was asked why others called him Rabbeinu haKadosh (Our Holy Rabbi). He attributed the appellation to his conduct in private matters (cf. B.T. Shabbos 118b.) Rab-

This method of analysis can be used for any question that has anything to do with Faith. By looking at the question from opposite points of view, and then from that of the Objective Truth Seeker, one can explore all sides of the issue without becoming confused. While we all live in a logic bubble, this method will allow us to temporarily step out of it and enjoy the ability to look at many sides of an interesting question and attain a greater measure of objectivity that we would have otherwise.

Rabbi Zev Greenblatt



Dear Editor,

I found Rabbi Zev Greenblatt's article very interesting and thought-provoking. It was an interesting analysis of the Objective Truth Seeker with an example that tried to exemplify the situation of the person who seeks truth in this manner. However, I have many questions still unanswered and I will pose them as such:

1. What is the motivation for classifying "the line of thinking if my beliefs are not true" as intelligent; and if my "beliefs are true" as non-intelligent?
2. In general, are belief systems characterized like a mathematical system- X and not X- or can beliefs be viewed in other shades?
3. How do we know that by finding X one's belief system is weakened and by not finding X one's belief system is not necessarily strengthened nor weakened?
4. What is the precise relationship between X and Y in the article?
5. Why are *frum* people added on when it comes to belief systems where one lives in their own logical bubbles? Is it possible to have a belief system without a logical bubble? What does this actually mean?

All in all, a very inspiring article which raises many questions for the reader.

Chaya Wajngurt-Levy



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ing is always preferable to dying. Since we don't find this, we must assume that all the people of the world are descendents of Noah who passed on to them the transgression of "Ever min hachai."

2. If the Flood did not happen, or if it was a local event, you would not expect to find Flood Myths except in areas of the world that were close enough to the Jewish People such that they could have learned of the myth from us. Should we find Flood Myths in all or most societies of the world that go back their possible exposure to the Jewish one, it would be logical to assume that there was some kind of global event, or series of events at around the same time.

### ALB

If the flood happened, we would expect to see evidence of it all over the world. We would expect to find deposits of human bones mixed with animal bones, pottery, clothes and everything else that would have gotten washed together in the flood. If the fossils of all the extinct animals were created by the Flood, we would expect them to all be found in the upper strata, not buried so deep underground in lower stratas. If the rain contained sulfur, we

would expect to see a layer of sulfur similar to the KT boundary in between two other sedimentary layers. Also, we would expect all the people of the world to have an explicit massorah that says that they are descendents of Noah, that the Flood happened and on the 7 Noachide Laws.

### OTS

He would first study all the flood myths from all the peoples of the world and note the similarities and differences. He would study flood geology and archeology and see to what extent they support the myths. He would consider the possibility that there may have been different flood events in different parts of the world with different characteristics, and he would note the possibility of all these flood events being part of a general thaw that took place after the Ice Age.

He would also want to know if we must rigidly insist upon a literal understanding of a total global flood, or if Scripture allows for other interpretations such as a local event, or a hybrid of local/literal-global/allegorical.

Finally, he would state the probability of each of these possibilities.

beinu Avraham ben haRamBam (1186-1237), the only son of Maimonides, offers an additional explanation for the unique title given to this Tanna, also known simply as Rebbi. In his *Ma'amar al Odos D'rashos Chazal* printed as a preface to classical editions of the Ein Ya'akov and in Prof. Elazar Hurvits's *Seridim miTorasan shel Ge'onim ve-Rishonim: miGenizas Kahir* (Cairo) (Yeshiva University, 1989) he writes in explanation of Rebbi's decision to follow the opinion of the gentile sages in the matter of their astronomical dispute, recorded in Pesachim 94b, with Chachmei Yisrael: "And now understand...what great principle he has taught...for Rebbi made his decision...based on [nothing but] proof...he truly is called Rabbeinu haKadosh, for when a man...changes his opinion when he is given to understand its rebuttal, there is no doubt that he is holy."

We trust that you will enjoy our Convention's many presentations in this spirit.

Nisan Hershkowitz, DDS  
Vice President, AOJS  
2009 Convention Chairman



[A Jewish Response to the Potential Swine Flu Pandemic](#)

*They informed Rav Yehudah: There is a deadly plague affecting the pigs. He decreed a fast. Do we say that Rav Yehudah holds that a plague which affects one [animal] species is likely to affect all species (and therefore, kosher farm animals were threatened also)? No. Pigs are different since their digestive tracts are similar to those of humans.*

*Babylonian Talmud, Taanis 21b*

*Since both pigs and humans lack a certain abdominal organ, there is reason to fear that epidemics that affect pigs may also particularly affect humans.*

*Meiri, Taanis 21b*

Swine flu is only the most recent contagious epidemic to surface. History is replete with epidemics that swept the world, at times killing or seriously sickening significant portions of the population, and causing social and political upheaval. While there have been multiple world-wide pandemics in the last century (including the polio pandemic of the 1950s), several were not particularly severe. But in 1918, a world-wide influenza pandemic, known as "Spanish flu," killed between 20 and 40 million people, more than the number of people killed in World War One. In fact, more people died in one year of the

Spanish flu than in the four years of the Black Plague (Bubonic Plague) pandemic that swept the world from

1347-1351.

It is not clear how severe the current Swine Flu outbreak will be. Sometimes the specter of widespread epidemic does not pan out, such as the frightening SARS outbreak in 2003 and the recent Avian Flu scare. Nevertheless, society must take precautions to protect itself from potential disaster. It is the protective measures which society utilizes that raise ethical questions. Many of these issues boil down to the conflict between individual autonomy and communal protection.

Judaism encourages policies which improve public health. While the Jewish approach to illness and healing requires us to recognize the paramount role of God in healing, we are obligated to guard our health by avoiding harmful activities and seeking appropriate medical care. [1] One is not even permitted to live in a city that does not have a doctor! [2]

Further, there is a Biblical obligation to return someone's health and a prohibition to "stand idly by" and allow one's neighbor to become harmed.[3]

In fact, Maimonides, in his commentary on the Mishna, [4] teaches that the obligation of a physician to heal is derived from the Torah obligation to return a lost object. Maimonides explains that if one must return a lost object, he must surely return his

friend's lost health! As a result, a physician is required to treat contagious patients after taking reasonable precautions to protect his health.

Even without a religious obligation, most people would probably want to cooperate with any governmental policies that would decrease the risk of spreading disease. But what if someone does not wish to cooperate? Does society have the right to limit their autonomy and coerce desirable action by mandating screening and treatment for serious contagious illnesses and breaching confidentiality to further public health goals?

For example, historically, when tuberculosis has posed a significant health risk, patients who did not voluntarily seek out treatment were forcibly institutionalized to receive treatment.[5] Even today, there are places in the United States that allow involuntary incarceration for tuberculosis treatment. The justification is that the untreated patient poses an unacceptable risk to others which justifies limiting his freedom. [6] Does Judaism accept this approach?

#### **Autonomy versus Coercion**

While there is a degree of patient autonomy in Jewish law, it is based on the idea that the patient is the final arbiter of what treatment is most pru-

If one thinks "if my beliefs are not true what would I expect to find?" Let's say he would expect to find X. There are two possibilities. Either he will find X or not. If he would not find X, his beliefs would be strengthened. If he would find X, he would break even, as finding it would still not disprove his beliefs.

On the other hand, if one were to think "if my beliefs are true I would expect to find Y," what would happen? Either he would find Y, or he would not. If he would not find Y, his beliefs are neither strengthened or weakened. If he find Y, then his beliefs are weakened, he feels uncomfortable and hurries to find an explanation.

We see that when it comes to belief systems, everyone lives in his own logic bubble (OLB), from people included. The question arises as to whether it is possible for anyone to actually be objective. Assuming not, it might still be possible to get closer to an objective truth by imagining how a theoretical "objective truth-seeker" might think, and what he might say.

I would say that this Objective Truth Seeker (OTS) will never state with certainty his conclusions. All he would be able to do is collect all available information and state probabilities. As new information becomes available, he will adjust this probability assessment one

way or the other. Since he knows this could happen, he will never declare a belief to be 100% true or false.\* He would insist on exact definitions, and might also reframe the question.

\*This idea of "Uncertainty" is explained by Emanuel Rackman, quoted by Prager and Telishkin in "Nine Questions About Judaism" (Simon and Schuster).

While it is not intelligent to examine one's own belief via "if my beliefs are true" way of thinking, it is possible to imagine what all three types might say as an intellectual exercise.

I will use Noah and the Flood as an example of how this way of thinking might be executed. I will use two belief systems for OLB. The Frum Logic Bubble (FLB), which is the one I am the most familiar with and the Atheist Logic Bubble (ALB) which would be the opposite.

#### **FLB**

1. If the Flood did not happen, we would expect to see many peoples of the world practicing "ever min hachai." Cutting a limb from an animal makes economic sense as it affords the ability to eat some meat without having to kill the whole animal. There may be some suffering for the animal but suffer-

“The Obvious Proof” (CIS, 1993, Formerly known and The 2001 Principle) use a similar principle to explain why highly intelligent people do not think in ways that make them come to recognize the existence of a Creator: Such a discovery would contradict their lifestyle and cause them great emotional stress and upheaval.

It is based on the concept of “shochad.” When a judge takes a bribe, he creates a “logic bubble” that will cause him discomfort should he judge against the bribe. This influences his logic no matter how great and intelligent he is.

What is interesting is that the same mechanism can work in the opposite direction.

A person who is already living a frum life-style would become very uncomfortable should he to start thinking along the lines of “If my beliefs are true, what would I expect to see?”

The most logical and intelligent way of thinking would be one that reinforces his lifestyle and makes him more certain, comfortable, and happy.

The Chovos HaLevovos in Sha’ar HaYichud (ch 4 - 5), when he shows how to use logic to prove the fundamentals, uses a form a logic that is more designed for reinforcement than

objectivity. He says to first accept the massorah and then go through the following logical steps: (1) consider the possibility that the fundamental concept in question is not true. (2) Take the next logical step in determining what you would expect to find if it were the case. (3) Discovering that what you find contradicts what you would have expected to find. (4) Discard this possibility upon the discovery of this contradiction and returning to the only other possibility – the truth of the concept with a strengthened belief.

The Chovos HaLevovos also emphasizes that one would first attain knowledge of the fundamentals by way of tradition and then investigate by way of reason to strengthen these beliefs. (intro. P. 31, Feldheim)

The kind of logic that he uses then, is not designed to prove something to someone who doesn’t believe, or to convince someone who is still searching for the truth. It is rather a logical way of thinking that is designed to strengthen one’s own belief system, dispel doubts and attain happiness.

We see that it is important to distinguish between a line of thinking that begins with “if my beliefs are not true” and “if my beliefs are true.” The first line of thinking is intelligent and the second one is not. This can be understood by following the logic through.

dent for his particular illness, based on his particular circumstances. Nevertheless, the patient is required to seek appropriate medical care and he may not refuse a standard and safe therapy that is documented to be effective, unless there is some other effective treatment. If the patient refuses an effective treatment for a dangerous condition, he may be coerced [7] to accept treatment unless the procedure or the stress of coercion poses an even greater risk to his health. [8]

It would follow that if the patient himself needs the treatment, particularly if the disease is life-threatening, then he is obligated to accept it and therefore society is justified in requiring it. But what if the threat to him is small, but the risk to others is great? Beyond the obligation to guard one's own health and to treat his neighbor's illness, there is an additional area of Jewish law that comes into play when it comes to public health.

The area of Jewish law called *Choshen Mishpat*, which deals with contracts and business, also spells out Torah based and rabbinic obligations that one has towards his fellow man to avoid causing damage. For instance, the Torah discusses the damages one must pay for digging a pit in a public place that may cause injury. The Talmud fleshes out this concept, with Jewish legal texts explaining that any ac-

tion that creates a public safety threat is forbidden and creates liability on the part of the perpetrator. [9] This concept plays out in several ways in our current issue of epidemic and pandemic.

A person who carries a dangerous disease, even if he himself is not affected, is forbidden to act in a way that might spread the disease and must minimize danger to others. [10] Therefore, while confidentiality is a sacrosanct concept in Judaism and there is a strict prohibition against lashon hara (gossip) which prohibits revealing confidential information, a physician is obligated to inform the spouse of a patient with AIDS if the spouse will not give over the information himself. Similarly, if confidentiality will threaten public health, then public health must take precedence and information must be appropriately revealed.

### Quarantine

Regarding quarantine, the issue is more complex. If a person has symptoms of the serious illness, it is easy to justify quarantine to protect the public. But, if a patient has only possibly been exposed to a serious contagious illness, are we justified in curtailing an individual's autonomy and freedom for a theoretical threat to public health?

The answer revolves around what represents *pikuach nefesh* (a threat to life). Jewish law requires pushing off all but three Torah prohibitions to save a life. Even for a questionable threat to life, Biblical prohibitions may be set aside. Rabbi Shlomo Zalman Aurbach, a leading Israeli posek of the 20th century, dealt with the question of how far this concept extends. He discussed immunization for a serious illness of which the general population is afraid. [11] If the vaccination is only offered on the Sabbath or one would have to wait several years to be immunized, foregoing the vaccination is considered a possible threat to life and justifies transgressing the Sabbath. [12] We see from this ruling that preventative health for an individual falls under the rubric of questionable threat to life.

A practical application of this concept is occurring with the current health crisis. The Israeli Health Ministry has ordered the quarantine of several people who have returned from Mexico and show signs of possible Swine Flu. Even those arriving from Mexico who do not display signs of flu are being urged to remain home in voluntary isolation for seven days, the incubation period of Swine Flu, until they are sure that no signs of the illness develop.

Two prominent *poskim*, Rabbi Yosef

Sholom Elyashiv and Rabbi Shmuel Vosner, added *halachic* credence to the government's approach by ruling this week that yeshiva students who had recently returned from Mexico must be segregated from the other students until it is confirmed whether they have contracted Swine Flu. Rabbi Yosef Sholom Elyashiv, a leading rabbinic legal expert in Israel justified the quarantine, saying that "it could be a question of *pikuach nefesh* and until it is certain the students returning from Mexico are not infected, they should remain separate from the others." Rabbi Vosner ruled that the students' school "must adhere to Health Ministry directives to keep the students separate." [13] Both of these rulings support quarantine in situations of public health concern, despite the inconvenience to the asymptomatic individuals.

It becomes clear that in times of epidemic, when weighing private rights versus societal obligations, society has a right to limit the autonomy of individuals if such limitations are reasonable and necessary for public health. Of course, such actions must be done in a way that limits inconvenience to the individual. Let us pray for a speedy and safe ending to the current medical crisis.

Daniel Eisenberg, MD

*This and other articles on medical ethics*

authored by Dr. Eisenberg can be found on his web site at [www.jewishmedicalethics.com](http://www.jewishmedicalethics.com).

### Footnotes

[1] Maimonides, Mishneh Torah, Hilchos Deos, Chapt. 4. The Biblical sources themselves are found in Deuteronomy 4:9 and Deuteronomy 4:15 which are Biblical sources for the obligation to guard one's health and Deuteronomy 22:8 which commands construction of a roof parapet to prevent injury. See also Maimonides, Mishneh Torah, Hilchos Rotzeach, Chapters, 11, 12, and 14, as well as Shulchan Aruch, Yoreh Deah Chapter 116:5 which discuss the details of guarding health.

[2] Maimonides, Mishneh Torah, Hilchos Deos, Chapt. 4:23

[3] Leviticus 19:16

[4] Maimonides, Pirush Hamishnayos, Nedarim, 4:4, derived from Deuteronomy 22:1-2.

[5] Saks, Elyn, Refusing care: forced treatment and the rights of the mentally ill, University of Chicago Press, 2002, p. 69.

[6] Coker, Richard, From chaos to coercion: detention and the control of tuberculosis, Palgrave Macmillan, 2000 pp. 126-131

[7] Mor U'Ketziah, Orach Chaim 328

[8] Igros Moshe, Choshen Mishpat II, 73:5. See also article of Rabbi Dr. Mordechai Halperin in Piskei Din Refuah

Umishpat, Vol. 1, 1989, p.101

[9] Tur, Choshen Mishpat 378:1. See also Kehillas Yaakov, Bava Kamma, Chapter 1

[10] Such a person would be considered a pursuer of others and a potential damager.

[11] Rabbi Aurbach deals with smallpox in his responsa at a time before the eradication of the disease by the World Health Organization. See "The Ethics of Smallpox Immunization," .

[12] Minchas Shlomo, vol. 2:29d (Machon Otzros Shlomo Edition)

[13] Yeshiva World News, May 1, 2009



### The Logic Bubble and the Objective Truth Seeker: How to Analyze Beliefs

Edward De Bono writes in "De Bono's Thinking Course" of the concept of the "Logic Bubble." He gives as an example, someone who works in a company that does not reward for innovative or creative thinking, but punishes for ideas that end up not working. A person in such a situation would be unintelligent if he were to think of innovative or creative ways to benefit the company. This situation created by such a company is called a "logic bubble" where the most intelligent way of thinking is one that secures his position within system.

Robinson and Steinman, in their work