PIQUE

Newsletter of the Secular Humanist Society of New York

Upcoming SHSNY Programs and Events

First Sunday & Last Sunday ZOOM Happy Hours of the Month, 5PM ZOOM

– See <u>meetup.com</u> for details

Sunday Brunch & Conversation Sunday, February 19, 2023. Time: Noon-2PM, The Globe Restaurant, 158 E. 23rd. St., NYC Topic: TBD. Led by Dorothy Kahn

Non-Fiction Book Club, Feb. 2nd, 7:00 PM

- See <u>meetup.com</u> for details.

Book: *The Great Experiment*. Why Diverse Democracies Fall Apart and How They Can Endure by Yascha Mounk

- See meetup.com for details

Fiction Book Club, Feb. 8th, 7:30 PM

Book: TBA

- See meetup.com for details

SHS NY Doings

Our live **Darwin Day** celebration is coming up Saturday February 18th. We are pleased that Secular Humanist filmmaker **Chris Johnson** will be coming as our speaker. It will be held Tony's DiNapoli, 1081 3rd Ave. near 64th St. We met there last October for Free Thought Day.

The next **monthly brunch** will come on February 19th at The Globe restaurant, 158 East 23rd St. near 3rd Ave. At the end of the meal, Dorothy Kahn will conduct a discussion on a provoking topic.

The **Happy Hour** get togethers are held on the last Sunday of the month. Emails will be sent out on that Sunday giving the Zoom link, id and password.

The nonfiction bookclub meets next on Thursday, February 2nd. The fiction bookclub meets Wednesday, February 8th. You will find the Zoom id and password on the SHSNY calendar on the website: <u>www.shsny.org/calendar-of-events.html</u> and this will be sent out by email.

New SHSNY President

Brian Lemaire has been voted by the board to serve as our new president. Praise and thanks for David Orenstein. David served successfully as President from September, 2021 until this year. He brought us together for a wide assortment of events. At last April's March for Science along Central Park West, he bought us all blue t-shirts bearing the SHSNY logo on the front. Most of all, David put together PIQUE each month, which takes time and energy.

www.shsny.org



If you have a comment or material you'd to like to appear in the next issue of PIQUE, please email it to editor@SHSNY.org

Upcoming Events

Three times a year we host an event at a Manhattan venue where we bring in a speaker, often giving an A/V presentation and a Q&A session afterward:

Darwin Day celebration — Feb. 18 or 19 Day of Reason - May 7 Free Thought Day - mid October

Darwin Day. Darwin's theory of evolution acts as the universal acid demolishing the claims of religion.

Day of Reason. Our answer to the national Day of Prayer which every president in recent years has signed on to.

Free Thought Day. Commemorates the end to the Salem Witch trials in 1692. Cotton Mather wrote a letter imploring the court not to allow spectral evidence — testimony about dreams and visions. His son, Increase Mather, then-president of Harvard, denounced the use of spectral evidence: "It were better that ten suspected witches should escape than one innocent person be condemned." By October of 1692, with 20 people dead and many indicted people yet to be tried, Governor Phips released many accused witches and ordered the court to stop using spectral evidence.

What is secular humanism?

Let me answer that question by asking another question: what is the meaning of life? Life has no inherent meaning; it has only the meaning we choose to give it. That might mean learning to play a musical instrument or learning to sail. Or we may find meaning by helping someone else — trying to make the world a better place.

Secular humanism seeks to optimize the fullness of human life and rejects supernatural accounts of reality.

Religion was created by humans — partly as a method of the elites to keep their power. Belief in a god is a relic of the childhood of humanity, a childish way of seeing the world. With Secular Humanism, we look for meaning in life in the here and now. Secular humanism encourages us to tackle our problems and bond together in an emerging global civilization. May the force be with you in 2023.

Call for Help !!

This was emailed to us this Jan. 28th from Africa or the Middle East:

I am suffering from a big problem in my country because of religion.

I came out of the Islamic religion after I studied and read all the interpretations about it. I found that it is a barbaric religion without morals.

I am now trapped and scared.

Because in the religion of Islam there is a law.

He who changes his religion from Islam will be killed.

I mean, when you are a Muslim and get out of the religion, you are in danger from people.

I want to immigrate from the country, please, with all my respect to you.

I know that in America the law protects people and there is freedom of belief.

Sent from Mail for Windows

Yes to Science

A tool, and the global project using that tool, to discover and investigate our world

At the Reason Rally in Washington in March of 2012, one lady carried a sign that read, "Want to argue for Creationism? Write up your evidence. Have it peer-reviewed. Then collect your Nobel Prize."

This sign concisely expresses an important concept. When a religious person argues that we all follow a set of beliefs, that science has no monopoly on the truth, I would answer that, Yes, I believe in certain things. I can't personally confirm things like the existence of galaxies, the age of the Earth or the universe, the fact that the universe is expanding, and that this expansion is accelerating at a dizzying rate. Yes, I believe all these things without confirming them myself. They were discovered by people using the scientific method. The components

working together to form the scientific method, evolving mainly over the last five centuries, include

- 1. A reliance on observation, even observations that don't seem to comport with common sense, e.g. the observations on which quantum theory is built.
- 2. Experiments designed to prevent biases on the part of the researcher from skewing the results. In research involving human subjects, the "double blind" method has become standard procedure.
- 3. **Peer review**. Other scientists in the same field must be able to replicate the experimental results. "And concerning his scientific papers, it is only in attempts to explain his work to somebody who has not done it that he can acquire the discipline of clear and reasoned communication which, too, is part of scientific method." (Popper, Chap 23)

Replicate the results. Especially when a big paradigm-changing finding is made, it must undergo the attempt by other scientists to replicate the results. Cold fusion, anyone? These claims went through a cold shower instead when other scientists could not reproduce the findings in their own labs.

Scientific objectivity depends on this social nature of the endeavor. Others must weigh in on one's work. Articles published in a scientific journal, which subjects the material to peer review, receive the imprimatur of acceptance as a scientific finding. The publication of an article makes it available to the scientific community. If they find it useful it then enters the general body of scientific knowledge, until some later findings wholly or partially supplant these findings.

4. **Theory and observation**. A scientist invents a hypothesis which can be tested, and then submits it to practical tests (This description is a little too pat. In real life the process is usually more chaotic). **Theories must give way if new evidence falsifies them**.

All scientific findings therefore remain tentative, as "just theories". Even Newton's findings about gravity were partially supplanted by some of Einstein's theories. "It was one of the greatest achievements of our time when Einstein showed that, in light of experience, we may question and revise our presuppositions regarding even space and time." (Popper, Chap 23)

Frauds such as the "Piltdown Man" hoax and mistakes in theory, such as the underlying causes of ulcers, get corrected, because science is in part a competitive endeavor—scientists succeed when they find errors in previously accepted ideas.

5. Scientific knowledge advances in a cumulative way. Popper and Thomas Kuhn agreed on the essentially cumulative nature—not of scientific theory, but of the facts which a fruitful theory yields. Popper provided insights on how scientific knowledge accumulates through a process akin to natural selection, evolving in step-by-step fashion.

Kuhn has shown how science sometimes takes great leaps forward, advances that shift our paradigms, such as the Theory of Special Relativity. These too were built on the work of scientists who came before. Thus, Newton built upon the work of Kepler; Einstein built upon the work of Lorentz; Darwin built upon the work of Lyall, Lamarck and Malthus.

Eventually the old paradigm fades, but the facts it arrived at remain to accumulate and inform humanity. (Pat Duffy Hutcheon, Popper and Kuhn on the Evolution of Science)

When one individual contributes a significant improvement to this method, he moves us forward in an important way and deserves our thanks. Galileo contributed to our focus on the central importance of evidence. In the 1950s the Austrian **Karl Popper** contributed the notion of **falsifiability** to the scientific method. At least he was the first to name the concept falsifiability, and to focus on its importance. Carl Sagan gives us a hilarious, devastating example of this falsifiability concept in his <u>story of the invisible</u> <u>dragon</u>—which in turn casts doubt upon the heart of religious belief. If people believe in an invisible dragon, a flying spaghetti monster, Thor, or Jehovah, and the believers cannot describe any observation which, if made, would discredit (falsify) such belief, then that belief is not falsifiable and does not belong in the body of scientific knowledge.

Karl Popper laid out his tenet of falsifiability in the books *The Logic of Scientific Discovery* and *The Philosophy of Science*. It was the conscious, purposeful search for falsifications, and the survival of theories in the face of them, that allowed science to proceed and objective knowledge to grow. The reason science gave you knowledge you can rely on was that science itself wasn't sure. Science wasn't the name for knowledge that had been proved true, it was the name for guesses that could be, but haven't yet been, proved false.

Popper drew on the earlier work of David Hume and his "problem of induction". The picture must always be haunted by a small, permanent ghost of uncertainty. In the textbook example, if the law stated that "All swans are white" you could count white swans for centuries but still not know that all swans were white, not for sure. Science relies on an asymmetry to decide on which theories are correct: no number of white swans could tell you that all swans were white, but a single black swan could tell you that they weren't. (Gopnik)



Stuart Firestein, a professor of Neuroscience, has published a book about science and the experience of dealing with ignorance while working at the edge of what is known. *Ignorance: How It Drives Science*. Says Firestein:

More often than not, science is like looking for a black cat in a dark room, and there may not be a cat in the room. The process is more hit-or-miss than you might imagine, with much stumbling and groping after phantoms. But it is exactly this "not knowing," this puzzling over thorny questions or inexplicable data . . . the driving force of science. Firestein shows how scientists use ignorance to program their work, to identify what should be done, what the next steps are, and where they should concentrate their energies. And he includes a catalog of how scientists use ignorance, consciously or unconsciously—a remarkable range of approaches that includes looking for connections to other research, revisiting apparently settled questions, using small questions to get at big ones, and tackling a problem simply out of curiosity.

And sometimes (like with the experiments on luminiferous *aether*), failure can prove as interesting and move science forward as much as a successful experiment.

The book concludes with four case histories—in cognitive psychology, theoretical physics, astronomy, and neuroscience—that provide a feel for the nuts and bolts of ignorance, the day-today battle that goes on in scientific laboratories and in scientific minds with questions that range from the quotidian to the profound.

Regarding climate change and science, "If more people embraced the seductive appeal of uncertainty, he says, it might take some acrimony out of our public debates." —Sandra Blakeslee, New York Times

I trust in knowledge found through this scientific method, not in the Bible. One set of ideas allows for revision, the other remains fixed. One set of ideas has a vast body of knowledge at its command which it can build on in a cumulative way; the other does not. More of our science curriculum at all levels, grade school through college, should devote time to learning about the scientific method.

Max Planck said that science advances one funeral at a time. Meaning that old theories may never die, but old theorists do, and when they do, they take their theories with them. A new generation is always more comfortable dispensing with old ideas than are their predecessors.

So why does it take so long for many canards in the fields of medicine and psychiatry to die?

Popper is quoted here from "The Open Society and its Enemies". "A Pilgrimage to Popper" by Adam Gopnik, appearing in The New Yorker issue of 04-01-2002 provided the material about the black and white swans.