



SCOPE

Michael J. Hogan, MD: 1907-1976

J. Brooks Crawford, MD

In a life filled with many accomplishments, two by Dr. Michael J. Hogan stand out as major contributions to the field of ophthalmology.

Along with a few other department chairs at the time, Mike Hogan emphasized the concept that ophthalmic management should be based on a thorough knowledge of pathology. Among a small cadre of full-time academic ophthalmologists, he helped develop the modern concept of an ophthalmology department with both a strong basic science component and excellence in clinical training and care.

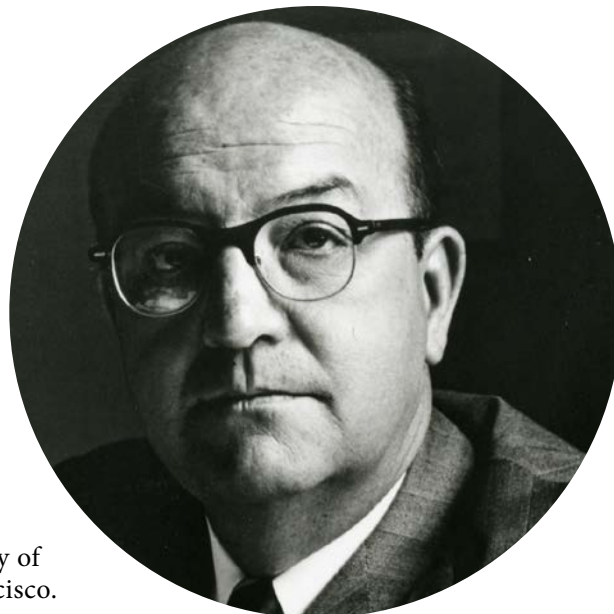
Dr. Hogan was born in Kemmerer, Wyo. in 1907 and grew up in Wyoming and Utah. He received a bachelor's degree in 1930 from the University of Utah, where he was an athlete on the swim team. After earning a medical degree from Cornell University in 1932 and following his residency in general surgery at Bellevue Hospital in New York City in 1935, he entered a general practice in San Diego. There he met his future wife, Vera Merrill, whose father was an ophthalmologist and who inspired Mike to enter an ophthalmology residency program chaired by Dr. Frederick Cordes at the University of California San Francisco.

Following fellowships at the

Illinois Eye and Ear Infirmary in Chicago (1940-41) and Columbia University's Institute of Ophthalmology in New York City (1941), he returned to California to private practice and a clinical instructor position at the University of California San Francisco.

From 1943 to 1946, he served in the Navy as a lieutenant commander. Subsequently he was awarded the first full-time academic appointment in the Department of Ophthalmology at UCSF. Dr. Cordes, the first chair of the department, had supported himself through his private practice and received just \$1 a year for his service in organizing and running the department.

Dr. Hogan became the first director of the Francis I. Proctor Foundation, an independently funded research section of the ophthalmology department and became interested in uveitis and particularly toxoplasmosis, publishing numerous articles related to ocular inflammation. One was a classic article on toxoplasmosis, which became the subject of his American Ophthalmological Society thesis.



At UCSF, he was one of the founders of the uveitis survey clinic, which compiled data on the history, physical findings and laboratory investigations of more than 5,000 patients with uveitis. Free of any charges, he solicited eyes from anywhere in the world for microscopic examination, including postmortem eyes and eyes enucleated because of complications from uveitis.

These uveitis patient survey clinic study data contributed to a better understanding of ocular inflammation and incidentally revealed that several eyes that had been treated for uveitis actually also had harbored retinoblastomas or other intraocular tumors. In 1967 and 1968, he spent a sabbatical year in Rome, studying uveitis and especially Behcet's disease.

Michael J. Hogan, MD: 1907-1976

Dr. Hogan's primary interest in academic ophthalmology was the discipline of ocular pathology and oncology. He had started the eye pathology laboratory at UCSF and was its director from 1946 to 1959. Then, in 1959, he succeeded Dr. Cordes as the chair of the Department of Ophthalmology, a position he held until 1975.

Although not a founder of the Verhoeff Society, (now the Verhoeff-Zimmerman Society), which was founded in 1945 by T. E. Sanders, John McLean and Benjamin Rones, he was one of its earliest and most influential members. He made sure that all of his former students and colleagues who had an interest in eye pathology became members of this leading and oldest ocular pathology society. These colleagues included Levon Garron, William Spencer, Edward Howes and J. Brooks Crawford.

Dr. Hogan was one of the early adopters of the electron microscope for the study of eye pathology. He and one of his electron microscope technicians, George Alvarado, and Joan Weddell, a talented medical illustrator, published a book, *Histology of the Human Eye* in 1971, which became a classic. Subsequently, Dr. Alvarado went to medical school, became a resident in ophthalmology under Dr. Hogan and then became a prominent and internationally famous glaucoma specialist in the Department of Ophthalmology at UCSF.

Drs. Hogan and Lorenz Zimmerman expanded and edited the second edition of "Ocular Pathology," which was essentially a new textbook rather than just a new edition. Dr. Zimmerman lived with Dr. Hogan in Mill Valley while they worked on this project. At the time, and for many years, theirs was the most important and influential book on

the subject of ocular pathology.

In 1953, Dr. Hogan became one of the first to recognize the benign nature of an optic disc melanocytoma, tumors which were not named nor described until 1962 by Drs. Garron and Zimmerman. He was also one of the first to treat primary ocular melanosis with local excision rather than exenteration, the conventional treatment at the time. Dr. Brooks Crawford conducted an extensive follow up of these patients for his AOS thesis and Dr. Devron Char, one of Dr. Hogan's former residents who became an eminent ocular oncologist, continued the care of these patients after Dr. Hogan's death.

During World War II, then-new and expanding shipyards in the region of San Francisco were building liberty ships – transport ships – for the war effort and hired many workers with little or no previous training in welding. The yards operated 24 hours a day, and welders shared goggles and masks with those who worked on previous shifts, leading to an epidemic of keratoconjunctivitis (EKC).

Patients were seen by Joseph W. Crawford, who was an ophthalmology consultant for Bethlehem Steel. Dr. Hogan evaluated the patients at the Proctor Foundation. He and Dr. Crawford published an article, which was reproduced later as a "landmark article" in the August 2018 edition of *American Journal of Ophthalmology*. Dr. Crawford used some of this material for his AOS thesis. Thus, Dr. Hogan directly or indirectly contributed to the AOS thesis for both a father (Joseph W. Crawford) and son (J. Brooks Crawford).

Dr. Hogan was a member of the American Medical Association Board of Trustees and on the Board of Directors of the American Board of Ophthalmology, the Association for Research in Ophthalmology, the Heed Ophthalmic Foundation and the

National Society for the Prevention of Blindness. He was president of the Northern California Society to Prevent Blindness.

He was a member of the American Ophthalmological Society and a recipient of their highest award, the Howe medal. He also received the Proctor Gold Medal, the Knapp Prize, The Bowman Medal and the Outstanding Civilian Service Medal from the Surgeon General. He was a gifted, articulate and prolific writer and served on the editorial boards of *The American Journal of Ophthalmology*, *Investigative Ophthalmology*, and the *Archives of Ophthalmology* (now *JAMA Ophthalmology*).

The *American Journal of Ophthalmology* dedicated a special issue to him in 1975. As might be expected of an ophthalmic pathologist, clinician and oncologist, his extensive list of publications included inflammatory conditions, anatomy and tumors of all parts of the eye and orbit.

As chair of the Department of Ophthalmology at UCSF, he nourished his residents with knowledge, enthusiasm, compassion, humor and a special interest in their family lives and well-being. Every year he and his devoted and gracious wife, Vera, would invite residents to his home for a barbecue, hiking on Mount Tamalpais and swimming in his pool. He was easy-going, tolerant and never in my experience showed anger or frustration. His friends and colleagues called him "Uncle Mike." To relax, he loved to watch B westerns (cowboys, Indians and outlaws), quite a contrast from his broad cultural, intellectual and academic pursuits

The author is indebted to Fraser Muirhead, MD, and Devron Char, MD, for suggestions about this article and to the obituary written by G. Richard O'Connor, MD, for many of the facts about Dr. Hogan's life.



The Future of Health Care Delivery

M. Bruce Shields, MD

You and I have witnessed remarkable changes in health care delivery during our lifetimes.

I suspect we can all remember back when we were quite young and had a stomach ache or fever (or something worse) and the good family doctor would come to see us at the bedside, sometimes in the middle of the night.

Of course, with the exception of those group practices that advertise as “Doctors Making House Calls,” that era of health care delivery by house call is long gone. By the time our era came along, health care was delivered primarily in our clinics or in the emergency room or hospital. But we were still caring for our patients face-to-face. In the future era, soon to follow ours, even those doctor-patient encounters may be looked back upon with nostalgia.

For those of you who have not yet seen it, the January 2019 issue of *National Geographic* is devoted to “The Future of Medicine” and has several interesting articles about what may be coming in health care delivery.

It seems very futuristic and yet may be just around the corner.

In one article, Dr. Daniel Kraft, who practices in Northern California, predicts that “increasingly, care will be delivered in a blended real-world-mixed-with-virtual-world model.” He suggests that the majority of patient-doctor interactions will no longer require the “laying on of hands” or even a physical exam. So what will the future look like?

A variety of devices are currently in development that may one day be used to obtain our vital signs and other important medical information. For example, of particular interest to the ophthalmologist, “smart contact lenses” are now in development that may someday measure blood sugar values in tears, to help diabetics manage their diet and medications, or may even pick up early indicators of cancer or other conditions.

Mobile vital sign tracking at a level that was once found only in intensive care units, may one day be a standard part of health information acquisition. Already, health tracking devices such as Fitbit and Apple smart watches are commonly used to measure and document fitness activities. In the future, they may be central to detection, treatment and, most importantly, prevention of disease.

For example, flexible electronic medical tattoos and stick-on sensors are being developed that can obtain electrocardiograms, measure respiratory rate or check blood sugar and transmit the results seamlessly via Bluetooth.

So, who will receive and process all this information? Some may be shared with the physician via web-integrated wireless scales, blood pressure cuffs and monitoring devices. Patient-physician interactions may take place through web-based portals with Skype-like techniques. A new

type of physician, the “virtualist,” may save patients the travel and waiting room time and actually return us to the days of “visits” by the doctor in our own home.

Or could it someday be a robot that will replace the human provider in answering information and triaging calls? A “chatbot nurse” may try to learn what ails you by asking about your symptoms and tapping into data from your wearable devices. Also in the future are “digiceuticals,” in which prescribed software is used to enhance well-being, such as monitoring blood pressure and other factors to help manage patients with heart failure.

Of course, artificial intelligence will take an increasingly important role in the future of health care delivery. Already, AI is being trained to read tissue samples and radiologic scans, with results that are comparable and much faster than those achieved by physicians. But it is not just the pathologist and radiologist whose future may be in jeopardy. Algorithms have been created for retinal scans that can predict which patients have systemic hypertension or are at increased risk of heart attack or stroke.

Like me, many of you reading this may think that you are thankful that you won't be faced with the challenges of this new era of health care delivery. Things are complicated enough today. It is certainly true that this “brave new world” will require both health care providers and patients who are facile with advanced electronic technology.

But keep in mind that both the doctors and patients of the future will be those people who have grown up on these technologies. And you and I can just be grateful that we have been a part of this continuum in the evolution of health care and that we were privileged to see what it was like before our era and to have a glimpse at what the future may hold.

Bruce T. Haight, MD: A Life on the Puzzler's Grid

M. Bruce Shields, MD

What is an eight-letter term to describe a crossword puzzle addict?

I'll answer that question below. But first, I have to say that one of the times that I feel most inadequate is when I'm attempting to solve a crossword puzzle. I say "attempt" because my wife works on them regularly and is pretty good at it. She tries to involve me by seeking my opinion on words that she thinks I should be able to get. If I contribute two or three words to a puzzle, I consider that an achievement. So, I have great respect for those who routinely complete crossword puzzles with apparent ease.

If I hold in esteem those who work on crossword puzzles as geniuses, I consider those who write them are a quantum leap higher. After struggling in vain to fill in those contrary blank squares, I often wonder, "How in the world does someone make up these things?" The answer to that question comes in the form of Dr. Bruce T. Haight.

Dr. Haight is an ophthalmologist of considerable accomplishment who also happens to construct crossword puzzles. Not only has he created more than 400 puzzles to date, but his puzzles and other works have appeared in *The New York Times*, the *Los Angeles Times* and the *Journal of the American Medical Association*, some syndicated in newspapers all over the country.

Dr. Haight's narrative begins in Beloit, Wis., where he grew up. He went on to earn his Bachelor of Science and medical degrees at the University of Wisconsin Madison, graduating Phi Beta Kappa as an undergraduate. After medical school, he went west to complete his residency in ophthalmology at the University of California San Diego. The

nice weather must have agreed with him, because he remained in San Diego, where he joined a private practice in 1982 and served as an assistant clinical professor of ophthalmology at UCSD and chief of ophthalmology at Grossmont Hospital.

At the San Diego Medical Society, Dr. Haight was elected as a "Top Doctor" and worked with



Dr. Haight (right) pictured with Will Shortz (left), crossword editor for *The New York Times*.

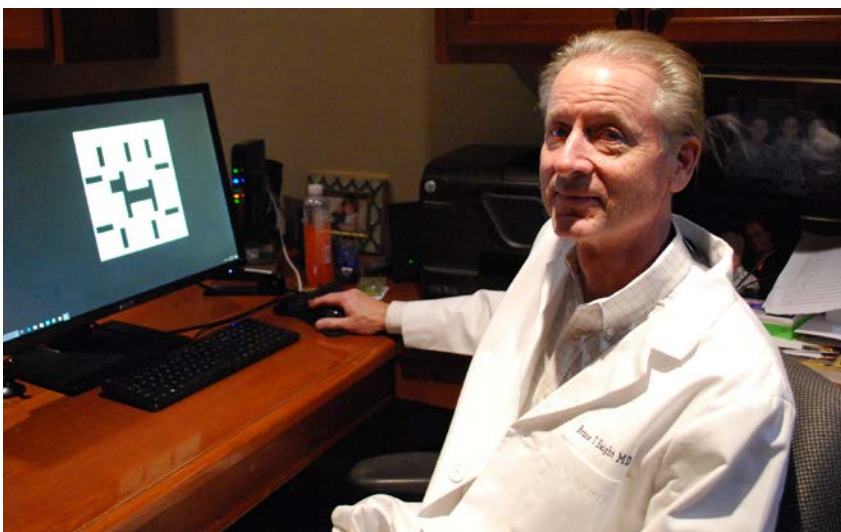
the Food and Drug Administration and Drug Enforcement Agency overseeing online pharmacies and curtailing the illegal sales of narcotics. His professional career has also spanned a range of research interests, including radial keratotomy, intraocular lenses, viscoelastic agents and ophthalmic toxicity studies.

Then about seven years ago, Dr. Haight discovered that he had another exceptional talent: constructing crossword puzzles.

"Sometimes I'll make a whole puzzle in between [seeing] patients," he noted in an interview for the *Milwaukee Journal Sentinel*. How does he do it? The following is his four-part explanation as recorded in the Sentinel.

First, he comes up with the theme. Depending on the size of the puzzle, there may be a dozen

Dr. Haight pictured at his desk, creates a crossword that looks like a dog.



longer answers around this theme. Next, he fits those answers into the puzzle grid and decides where the black squares should go. He is known for forming those squares into recognizable shapes such as a dog, musical note or even a large letter that becomes part of the words abutting it.

Then all the smaller and non-theme words need to be filled in, with everything lining up horizontally and vertically. Dr. Haight says he is assisted by computer programs, such as Crossword Computer, but that he provides the word lists. Finally, it's up to him to write clues for all the answers.

Cleverness counts. Solvers don't want the same old prompts over and over. Same with the answers.

"You want words that are common enough to where most solvers are going to have seen the word before," he says. "You want entertaining words that are vibrant and interesting."

Among Dr. Haight's admirers is Will Shortz, crosswords editor at *The New York Times*, who has commented that he admires Haight's creativity and has seen his puzzles get smoother and livelier during the past few years. Also among his fans are his patients, who like to work the doctor's crosswords in his office to take their mind off cataract surgery and lasers.

Although he is a transplanted Californian, he has remained loyal to the Packers and Badgers back in Wisconsin, where he and his wife return every summer for a family reunion at Lake Mills. Dr. Haight admits that his grown kids have limited interest in tackling his puzzles.

"They're not the word nerd people like I've become," he says.

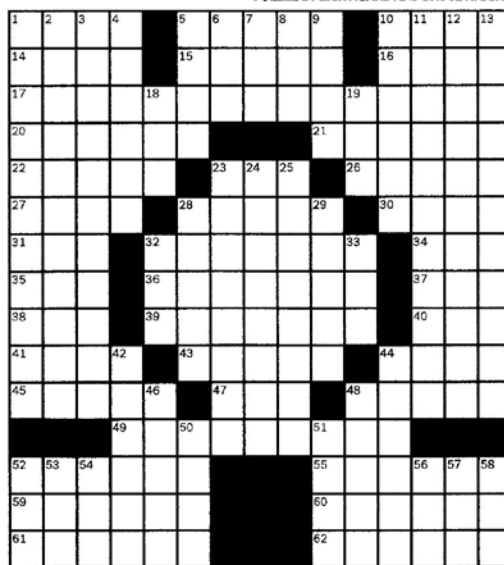
Crossword

Edited by Will Shortz

PUZZLE BY ERIK AGARD AND BRUCE HAIGHT

ACROSS

- 1 Bitter end?
- 5 Many a line from Benjamin Franklin
- 10 Fool, in British slang
- 14 Numerical prefix
- 15 First name in rap history
- 16 Look (for), as a compliment
- 17 Question after "Hey!"
- 20 Bathroom or beach supply
- 21 Eye intently
- 22 "Awake in the Dark" author
- 23 Mic holders
- 26 Soccer superstar Lionel
- 27 Gutenberg's Bible, e.g.
- 28 Workers, dismissively
- 30 Jean who wrote "Wide Sargasso Sea"
- 31 [Don't you think you're milking it a bit too much?]
- 32 Enid who wrote "National Velvet"
- 34 ___ milk
- 35 Checker of someone's vitals
- 36 2008 presidential campaign topic
- 37 Name associated with chicken
- 38 Unwavering
- 39 Takes off
- 40 Focus of Boyle's law
- 41 Relative of philia and agape, to the Greeks
- 43 Fortune 500 company whose products have a trademarked green-and-yellow color scheme
- 44 Capital of South Sudan
- 45 Hertfordshire neighbor
- 47 Provider of a traveler's check, for short
- 48 Like
- 49 Item suggested visually by the black squares in this puzzle's grid
- 52 Like many an ESPN Deportes watcher
- 55 Full-bodied
- 59 Redress
- 60 Reduplicative dance name
- 61 Impressively tough, slangily



10/12/18

DOWN

- 1 "Hmm ..."
- 2 Millennials, in relation to their parents
- 3 "Hope" and "Friendship," for two
- 4 HBO's "Veep," e.g.
- 5 Envelope abbr.
- 6 "OB-viously!"
- 7 Parrot
- 8 Go on and on
- 9 Vaper's device
- 10 Big name in pharmaceuticals
- 11 Not be in the driver's seat
- 12 Simple
- 13 "In other words ..."
- 18 Juicer
- 19 Group of whales
- 23 Heavy metal band with the double-platinum album "Countdown to Extinction"
- 24 Victory
- 25 Seafood known for its sweet taste and delicate texture
- 28 Peeled
- 29 Group running together
- 32 Tender
- 33 Many profs
- 42 ___ Kyle, Catwoman's alter ego
- 44 Go on and on
- 46 Places for pedestrians to be alert, informally
- 48 Drink with a straw
- 50 Sez
- 51 Some wares in a china shop
- 52 The International Space Station, e.g.
- 53 DuVernay who directed "A Wrinkle in Time"
- 54 ___ Baker (British clothing retailer)
- 56 Italian cardinal
- 57 Bummed
- 58 ___ time

ANSWER TO PREVIOUS PUZZLE



Online subscriptions: Today's puzzle and more than 9,000 past puzzles, [nytimes.com/crosswords](https://www.nytimes.com/crosswords) (\$39.95 a year).

Read about and comment on each puzzle: [nytimes.com/wordplay](https://www.nytimes.com/wordplay).

Crosswords for young solvers: [nytimes.com/studentcrosswords](https://www.nytimes.com/studentcrosswords).

But there is still hope that his grandchildren will find pleasure in his creations, as have thousands of people around the country. If you haven't already figured it out the question at the top, here's the answer: word nerd.

If you have an interesting hobby or know of a fellow senior ophthalmologist who does and would like to share it with your colleagues in *Scope*, contact Nee-shah Azam at scope@aao.org.

Expanding Member Volunteer Opportunities.

A new Academy effort is highlighting dozens of ways to volunteer outside of committee service. Learn how you can get involved.

<https://www.aao.org/about/governance/academy-blog/post/expanding-member-volunteer-opportunities>

In Defense of Wisdom

Samuel Masket, MD and Alfredo A. Sadun, MD, PhD

Last year, *The New York Times* contributor Haider Javed Warraich, MD, a 29-year-old physician-in-training, wrote that experienced (perhaps older) physicians may not be the best prepared to care for patients. They tend not to pay attention to more recent peer-reviewed literature, he argued, and are often prejudiced by older practice patterns, which Dr. Warraich referred to as “malignant relics of the past.” The piece stimulated much discussion in the SO community. Today, *Scope* offers a counterargument from one of the Academy’s Senior Ophthalmologist Committee’s longtime members. We hope it is great food for thought for all.

Response by Alfredo A. Sadun, MD, PhD

I recently read *The New York Times* article by Haider Javed Warraich, MD, a cardiovascular medical fellow.

In it, he makes several points in favor of young physicians and with a jaundiced view of older physicians. In essence, he argues that “over time, I have begun to see my lack of experience as a strength.”

Dr. Warraich suggests that older physicians move aside not merely to make room for younger physicians, but because they mistakenly rely on their antiquated notions. He does make some valid points, but he misses out on others.

For example, Dr. Warraich is simply mistaken when he complains that the mentorship of younger faculty should be, but is not a factor for academic promotions. Having sat on many such academic pro-

motion reviews, I can assure him that both formally, as well as in fact, mentorship is an important factor for academic promotions at all levels.

Is experience necessary or, as he says, even a detriment to understanding medical science?

Firstly, I recall this argument from my undergraduate days at MIT. A student shared his resentment at having to fulfill his required four semesters of humanities study and added that philosophy could be understood from first principles, so he didn’t need to study Socrates.

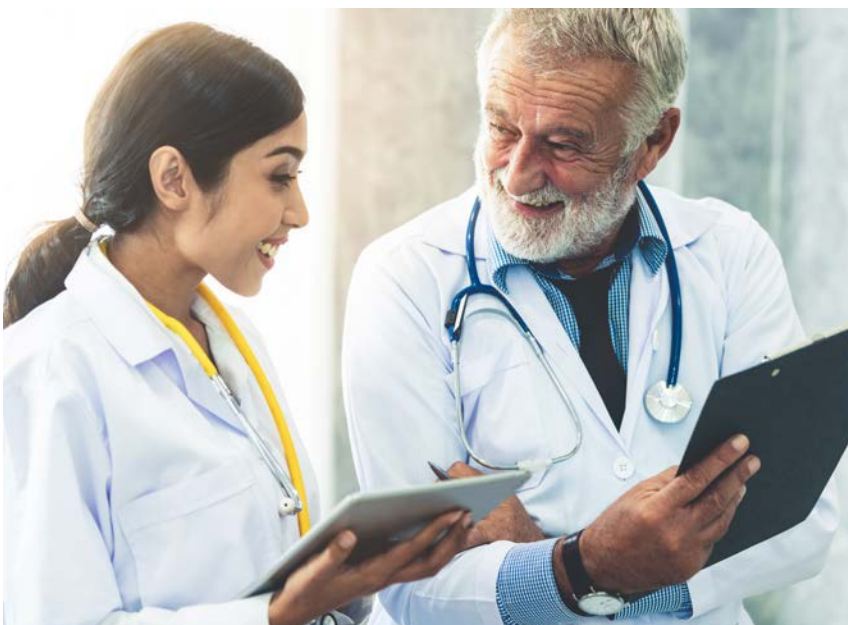
I told him that Descartes had made much the same point. Only after reading Descartes did this undergraduate come back to me, somewhat abashed, for he recognized how much deeper a lifetime of reading and thinking had taken Descartes. And so, it often is. You don’t know what you don’t know until you learn more. Those students of mine who were most convinced that they knew it all already were the ones with the most to learn.

Dr. Warraich is not wrong when he criticizes the elder physician who places himself on a pedestal. But does he think that the senior physician has a monopoly on arrogance?

I’ve had the pleasure of knowing some of the many accomplished ophthalmologists of the modern era, and I’ve been impressed that most were humble, and none placed themselves over their patients. I’ve trained more than 300 residents and fellows, and I admit that a few remained arrogant. But age is neither necessary nor sufficient as a basis for arrogance.

This brings us to Dr. Warraich’s most important and valid point. It is true that young physicians today have better access to high quality clinical evidence through peer-reviewed publications. I also agree that the new emphasis on evidence-based medicine is a welcome sea of change.

Digital access is now easier, and younger physicians display a greater facility in using this digital access. This is great, but the advantage is easily squandered if a young physician is unsophisticated and fails to appreciate



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how difficult it is to interpret peer reviewed literature.

I encourage the medical students, residents and fellows that swirl through my clinic to regularly read and show me any new publications that interest them. Current publications are always welcome and sometimes even pertinent.

But, consistently, the house staff officer does not understand the limitations of the papers presented. Despite the fact that I've published over 300 peer-reviewed articles and have reviewed thousands under consideration for publication, I still make mistakes in interpretation. My experience has taught me that the titles and conclusions of papers are often not supported by the very data published. I've also learned that fundamental flaws in design are often overlooked until another study comes out several years later.

Another frequent mistake some make is to assume that association shown by a study means causation, even if obvious confounders are taken into account. Indeed, Dr. Warraich makes that very mistake when he cites a study that shows young physicians provide a better quality of clinical care and claims that this is because of their "lack of experience".

Lack of experience was almost surely a surrogate that substituted for more recently educated. Review articles often mischaracterize the very papers they evaluate. But most of all, even in the best of circumstances, the conclusions only apply in special circumstances. The wise reader practices critical thinking and to understand that for each article there is a limited subpopulation for which the results of published work should apply. Such

wisdom comes with experience.

When I review articles, I occasionally reject them with the comment that "failure to prove is not proof of failure." Thus, the conclusion that a treatment doesn't work may be mistaken; what the paper really has demonstrated is that it could not show a treatment effect.

Perhaps there were not enough patients, the outcome measure was poor or there was just too much noise in the data. Unfortunately, many such papers conclude, and their titles infer that it was the treatment that failed.

This is sort of medical science's version of Kurt Gödel's incompleteness theorem that states that for any formal mathematical system, there will always be truths that are unprovable within the system. All of this critical thinking is enhanced from experience. I may not be as smart as I was just after medical school training, but I'm a far more skeptical reader.

This is not to put too fine point on it. We need to allow that experience and knowledge are not mutually exclusive, especially in regards to keeping an open mind in reviewing the literature. On the contrary, knowledge and experience set the perspective for the proper assimilation of new information.

Mark Twain famously said, "When I was a boy of 14, my father was so ignorant I could hardly stand to have the old man around. But when I got to be 21, I was astonished at how much the old man had learned in seven years."

Dr. Warraich was right when he suggested that older physicians had much to learn from younger ones. I hope he realizes that the reverse is also true.

Response from Samuel Masket, MD

At the time I graduated from medical school in 1968, I distinctly remember that the cardiologist was king.

(Definitely not queen, as I cannot recall a female in that position during training. Fortunately, that trend has evolved.)

Working only with an EKG (echoes were in their infancy) and a stethoscope, he could make the most subtle diagnoses on teaching rounds, describing esoteric clicks, rubs and murmurs and demonstrating barely discernable P-wave alterations, etc.

Fifty years hence, technology is now king, and the cardiologist barely need touch the patient, given all the cardiac lab readouts available on the electronic health record (EHR). I also recall that during interviews for a 1968 internship position, I was asked by a prescient questioner to tell him what I knew about biomedical engineering. I had no idea what I was about to witness.

Consider the evolution of cataract and lens implant surgery. When I began doing IOL procedures in the mid-1970s, only the most skilled (and perhaps luckiest) of surgeons could get lenses into the eye without injuring other precious tissue because we had no ophthalmic viscosurgical devices (OVDs) to cushion the blow.

By affording greater time and space in surgery, OVDs greatly leveled the playing field and allowed surgeons of varying skills to achieve excellent outcomes routinely. Now the nascence of laser-assisted cataract surgery holds the potential to have very inexperienced surgeons (perhaps not even physicians, as we are very

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costly and time consuming to train) achieve the same outcomes as the seasoned veteran.

The megatrend of technology potentially supplanting skill (and jobs) is obvious in medicine, if only as a microcosm of all human ventures. This concept was brought to light in a recent opinion piece in *The New York Times* by Dr. Haider Javed Warraich, a 29-year-old post-doctoral fellow in cardiovascular medicine. He suggests that “as the field evolves into one where data and evidence are beginning to outweigh anecdotes and opinions, one thing is becoming increasingly clear: In medicine, a lack of experience may

not actually be a bad thing.”

Going on, he referred to a paper from Harvard researchers that indicated that patients cared for by younger doctors were less likely to die, although the circumstances of that research were not stipulated. He asserts that other research demonstrates a “positive relationship between lack of experience and better quality of clinical care.” Is this really true? In our field, as an example, would a novice surgeon be better equipped to manage an unexpected suprachoroidal effusion or hemorrhage at surgery than would one who had “been there before?”

Nonetheless, Dr. Warraich asserts that the neophyte physi-

cian is likely to be more aware of newer modalities of care models, less steeped in outmoded “malignant relics from the past” and more likely to be concerned about the well-being of the patient. He seems to have a very jaded, and to my sense, inappropriate view of senior physicians, but he does make a strong point for mentoring and collaboration on both sides of the age line.

In that regard he has my full agreement, because as he correctly indicates, nearly 25% of U.S. physicians are above the age of 65. All of that collective wisdom and experience must be transferred to the next generation of physicians, lest it be lost.

The Medical Board and You

Thomas S. Harbin, MD, MBA

I have served on the Georgia Composite Medical Board, our medical licensing board, for more than a year.

The learning curve is steep, and I still consider myself a neophyte in a few areas. Nevertheless, I have learned a tremendous amount the easy way – i.e., by watching what happens to other doctors rather than the hard way – by having to deal with a personal investigation and fumbling through the process as some doctors do. My purpose is to have you gain an appreciation for your medical board and learn the best way to handle board inquiries.

First, I have been impressed that our board dedicates itself to protecting the public through a process that is fair to physicians. The board is the friend of ethical, properly practicing doctors. All boards are part of the Federation of State Medical Boards (FSMB). After reading medical board communications, I have

no doubt that all other states are similar to ours in Georgia.

Lesson no. 1: Read those board letters carefully.

Most doctors have little direct contact with their boards after they get a license and thus have little appreciation for all that boards do. Because of this, some doctors pay scant attention to board communications, occasionally to their regret.

For example, our state legislature passed a law making registration mandatory for the Prescription Drug Monitoring Program (PDMP), the program by which a doctor can learn about controlled substance prescriptions for patients. Some states refer to this as Prescription Monitoring Program (PMP).

Despite numerous reminders from state medical societies and our board, a small number of

doctors did not register and were thus in violation of the law. They were then subject to a fine and public reprimand, something that will stay on their records for the remainder of their practice lives.

It turns out these doctors were lucky in that our state legislature was in session and it passed a law rescinding the public reprimand, saving these doctors years of headaches, explaining and possible exclusion from insurance plans. Yet they all still had to pay \$3000 fine.

Lesson no. 2: The board can be your friend in protecting our patients from unethical doctors who have made poor decisions.

Ethical doctors sometimes see patients harmed by other doctors who have not followed the standard of care. The process of helping these patients gain redress through the courts is a time-consuming and public process, one which a doctor, especially in a small community, may not want to undertake.

The Medical Board and You

Another option is to counsel the patient to make a complaint to the board or make a complaint yourself anonymously, an option in many states. The board will take it from there and your duty to help the patient is fulfilled without undue publicity to yourself.

Lesson no. 3: Do not ignore or disrespect board investigations.

Patients upset by a bad outcome (or rude behavior) from their doctors can complain to the board. In this situation, the board investigates and contacts the doctor. This could happen to you even if you did nothing wrong in your care.

If this happens to you, whether deserved or not, do not blow it off. Do not write an angry, self-serving response. Cooperate with investigators and send all records requested. If you are invited for an interview, take advantage of the opportunity. Strongly consider hiring legal counsel. Every community has health care attorneys familiar with board investigations and the administrative law process, and this is the type of lawyer you would need to represent you.

Take your attorney with you to the interview. Be respectful, open and objective, all pursuant to your attorney's advice. Fellow doctors comprise the majority of boards. In my experience, we on the board are well able to distinguish between a bad outcome vs. a poor practice pattern.

In like fashion, boards investigate all malpractice settlements or verdicts. The preceding paragraph applies in this situation as well. Occasionally, an insurer will force you to settle a case even if you did nothing wrong medically. Here again, the board process will likely recognize this fact, assuming you follow the correct procedure in defending yourself.



Lesson no. 4: Take the easy way and get the help you need.

Doctors are human and some become addicted to alcohol or other drugs. Others – including family, colleagues or hospital administrators – recognize this situation and either confront the doctor or file a complaint. In the ideal situation, the substance abuser becomes aware enough to seek help, but doctors too rarely turn to help in the mistaken belief that they can handle it.

There are two ways to address addiction when it has advanced to the point of potentially harming patients. One you may consider the “easy” way is to take advantage of the board-affiliated Physicians Health Program (PHP). In Georgia, this is the name of the program, but other states may have slightly different versions for the same program.

It involves contacting the program, taking the required residential several month rehabilitation process and participating in at least five years of monitoring with random urine, blood and hair screens. This is by no means easy, but participating in these programs means that the board never learns of

your problem and your license to practice is not endangered.

A second avenue, one I consider the hard way, is to ignore your problem until the board receives a complaint, possibly after you harm a patient. At that point, the board knows about the problem and will mandate your participation in a rehab program, but you will be on its radar screen forever.

You will likely have to sign an “Agreement Not To Practice” and later petition the board before you can return to practice. You may have a reprimand on your record that is visible to the public.

Another manifestation of doctors being human involves inappropriate sexual behavior- boundary issues. This could involve sexual contact with office or hospital staff or, worst of all, patients. If they involve office or hospital staff relationships, people suffer. In addition, morale will suffer and complaints made. If with patients, as with staff, they may be harmed. Patients are even more vulnerable than staff as they can worry that their care could be compromised.

In Georgia, a doctor may not have a sexual relationship with a patient unless the doctor terminates the patient from the practice and

The Medical Board and You

waits two years. Any shorter time interval and the doctor violates board regulations. Other states may have different intervals.

In most instances, especially in these times of the “Me Too” movement, boards learn of these relationships and do not tolerate them. Here again, there’s the easy way and the hard way.

PHPs not only treat substance abuse, but also sex addiction. There

are programs across the country that deal with this specialized problem. Unlike substance abuse problems that can be monitored with objective screening tests, compliance with post-treatment programs can be accomplished. How? Polygraph tests can reliably detect lapses so there are ways to ensure proper behavior.

Lesson no. 5: See lesson no. 4.

In summary, state licensing boards protect patients in many ways while

affording physicians a fair process in investigations. Here are the lessons again:

- Pay attention to board communications.
- Let the board help in protecting patients from doctors who have made poor decisions.
- Handle board investigations carefully and properly, ideally with legal help.
- 4. and 5. If you have substance abuse or sexual boundary problems, enroll in your state’s PHP, get the help you need and avoid board oversight.

To Care is Human

Susan H. Day, MD

How many of you are familiar with these situations?

- In the OR lounge, surgeons lament the loss of autonomy, the lack of gratitude, the growing burden of documentation and the long hours they work.
- In attending your institution’s committee meetings, you note an increase in the number of “impaired physician” incidents.
- A hard-working colleague was seriously hurt in an evening traffic accident. He had been on call all weekend. Both fatigue and alcohol were suspected factors.
- Your community has recently been stunned by the suicide of a well-respected physician who seemed to have everything life could offer.

The central focus of being a physician is caring. Each one of the examples above suggests there’s an individual who needs a supportive, caring person. In our profession of medicine, we are called upon to care

for our colleagues, our trainees and, indeed, ourselves.

Just as the airlines remind us to put on our oxygen mask before attending to others, the analogy that we must care for ourselves in order to be caring physicians is appropriate.

It is difficult to address such issues. Ophthalmology is a wonderful specialty, full of ways to help our patients, enriched by society’s value placed on preserving vision and blessed with talented individuals who have chosen this field. In large part, our cups are far more than half-full.

We do not usually face the constant fatigue of helping terminal patients or interacting with increasingly complex hospital systems. Yet in all probability, each of us has had experience with incidents like those above. It need not involve us as individuals. It is far more likely to involve a medical colleague in distress.

When such circumstances present themselves, they are

uniformly difficult to address and often are accompanied by a code of silence or imposed confidentiality by virtue of committee rules or bonds of friendship. Moreover, the adage of “physician, heal thyself” may add a component of guilt, connoting an individual responsibility to solve such problems, as well as a perceived weakness of character to ask for help.

Our profession is no longer silent on this topic. Burnout is rising, depression among physicians exceeds that of any other learned professions and the incidence of physician suicide is higher statistically than the incidence of opioid-related deaths. Financial experts lament the loss of time and talent available when this spectrum of conditions affects healers. Physician wellness, also known as physician well-being, has burst into the consciousness of medical organizations.

This topic is best reviewed in “[To Care is Human](#),” published in the *New England Journal of Medicine*. The authors, Victor J. Dzau, MD, Darrell G. Kirch, MD, and Thomas J. Nasca, MD, represent the leadership of three major medical organizations: the National Academy of

To Care Is Human

Medicine (formerly the Institute of Medicine), the American Association of Medical Colleges (AAMC) and the Accreditation Council for Graduate Medical Education (ACGME).

At the recent annual educational conference of ACGME, the authors, all presidents and CEOs, each told their own story, reflecting on times in their careers where the responsibilities of being a physician impacted their own well-being.

One related his experience as a first-year medical student encountering cadaver dissection. It required shutting out feelings that the human body he was working on at one time was someone's friend, parent or colleague. Long hours and unrelenting fatigue unlike any he previously experienced set in. His sense of smell and touch were overwhelmed by elements that, under ordinary circumstances, would be repugnant. Classmates joked about specific features of their own cadaver "specimens."

A deep depression overcame him at the conclusion of the course. He considered dropping out, but was rescued by a caring student dean. After taking time away from his studies and receiving professional help, he resumed his career.

A second author admitted that telling his story was the hardest thing he had ever done because he came from a cultural background where it was simply not acceptable to show vulnerability.

During his first year as a resident, his wife fell seriously ill and was hospitalized. Serving on an ICU rotation, his attending told him that he could not leave the ICU to see her (the rotation required 24/7 coverage). He

resigned his residency, but with an immense sense of guilt that he didn't have what it took to be a doctor. Eventually he was able to return to his training, but continued to suffer immensely from a sense of personal failure.

The final speaker addressed his soul-searching experiences as a medical school dean and subsequent leadership positions centered on education. His most difficult days by far surrounded the deaths of students, residents and colleagues. These deaths included accidents, malignancies and suicides – the last category were the most difficult to accept. The deaths by suicide involved individuals he knew well.

"If only" he could have helped, he thought. "If only" he had known there was a problem. "If only" these individuals were helping patients with their talents and skills.

It is through such vivid storytelling that we can best see what opportunities we have to help our own. A refocus on humanism in medicine for the sake of those who help patients is long overdue.

The prevalence of burn-out, depression and suicide in physicians cannot be ignored. Burnout is not a mental illness, but rather a work environment issue. The responsibility we have to ourselves and to our colleagues carries an importance akin to that of patient care.

Ophthalmology and ophthalmologists are not immune. Younger generations have different experiences and have fewer years of honing resilience skills. As their mentors, we must approach them with values that they understand and with values which emphasize humanism.

At the Academy's Mid-Year Forum 2017, physician well-

being was front and center in discussions. Consequent to this discussion, tool boxes to address physician wellness can be found on the Academy website (www.aao.org/member-services/physician-wellness).

These resources address significant wellness issues unique to ophthalmology, such as ergonomics to prevent our major ophthalmic occupational hazard of back injuries.

Courses offered at Academy annual meetings provide further help to our membership. We even provide therapy animals and promote yoga sessions during the meeting.

Preventive medicine is a major factor in physician well-being, and the importance of diet, lifestyle, work-life balance and critical assessment of one's own values are just a few examples.

Fortunately, the stigma of emotional distress and the taboo of addressing this topic are diminishing.

There are more resources today than ever before. You can find information on physician wellness the websites of the National Academy of Medicine (nam.edu/initiatives/clinician-resilience-and-well-being), the Accreditation Council for Graduate Medical Education (www.acgme.org/What-We-Do/Initiatives/Physician-Well-Being/Resources) and the American Medical Association (www.ama-assn.org/ama-member-benefits/practice-member-benefits/physician-wellness-program).

How should we address this broad topic as individuals? We have such extraordinary responsibility as physicians. Our careers center on listening, discerning and helping. Such skills deserve to be shared among our colleagues. It starts with ourselves.

A Glaucoma Surgery: “So Safe, So Easy and So Certain...”

Wallace L. M. Alward, MD

“We have now in our hands a method so safe, so easy and so certain that I feel sure that this dread [of surgical intervention] will ere long pass away, and that the diagnosis of glaucoma will then be followed by a very early operation.”

The author was not an enthusiastic innovator describing a 2019 minimally-invasive glaucoma procedure, but Lt. Col. Robert Elliott describing his full-thickness Elliott trephine procedure in 1913. This inventing surgeon had not seen a secondary infection in 1,200 cases of his new procedure. He went on to advocate the procedure bilaterally, “despite the fact that the second eye was then to all appearances non-glaucomatous.”

Those of us who have had the occasion to perform full-thickness glaucoma surgeries would agree with “easy,” but less so with “safe” or “certain.”

My colleague and bibliophile, H. Stanley Thompson, MD, owned a

bookstore that focused on historic ophthalmology books. He occasionally passed interesting books on to friends. I was the recipient of a bound volume titled, “Glaucoma: A Symposium” – the published presentations of the 1913 Chicago Ophthalmological Society meeting (see Figure 1).

Reading these proceedings was like eavesdropping on a Subspecialty Day meeting 100 years ago. This volume provided a glimpse into the thinking and practices of that era’s ophthalmology giants.

Elliott’s trephine procedure was one in a cornucopia of glaucoma surgeries being performed at that time. Dr. Casey Wood reviewed the other 31 operations – some with intriguing names like the Sterns-Semmereole sclerotomy antero-posterior.

The Lagrange procedure seemed to be the most popular surgery at the time. In this procedure, an unsutured subconjunctival flap of sclera was created in a single pass with a von Graefe knife and an iridectomy performed. The aqueous drained into the subconjunctival space. Wood’s own horrifying modification of the Lagrange procedure removed the conjunctiva and let the aqueous flow into the tear film, leaving the iris and ciliary body exposed: “It is necessary to clear the neighborhood of the operation wound entirely of conjunctiva.”

Although there were many glaucoma surgeries to choose from in 1913, there were very few other therapies. Dr. George Edmund De Schweinitz reviewed the non-

surgical options, which he suggested be used when surgery was not possible or advisable. The only medicines routinely used were the cholinergic agonists or “myotics” (sic), physostigmine (Eserine) and pilocarpine.

Dr. De Schweinitz deemed that the most important doses were upon retiring for the night and again between 2 and 4 a.m. Patients using these drugs not only suffered from severe miosis and accommodation, but also with recurrent severe conjunctivitis. Osmotic agents were employed acutely. Sodium chloride was administered orally. Dr. De Schweinitz preferred the “introduction by bowel of fairly large doses of physiologic salt solutions.” Various hypertonic salts were administered subconjunctivally.

The opioid ethylmorphine (Dionin) was used acutely and was felt to be especially effective if used with the topical anesthetic Holo-caine. Topical epinephrine was sometimes mixed with “myotics” but frequently caused a profound increase in intraocular pressure (IOP). Part of the confusion about the varied reaction to epinephrine was because ophthalmologists at

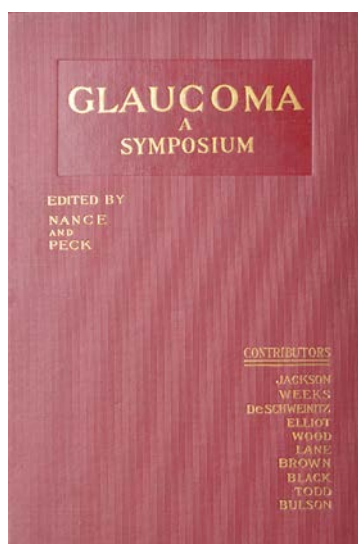
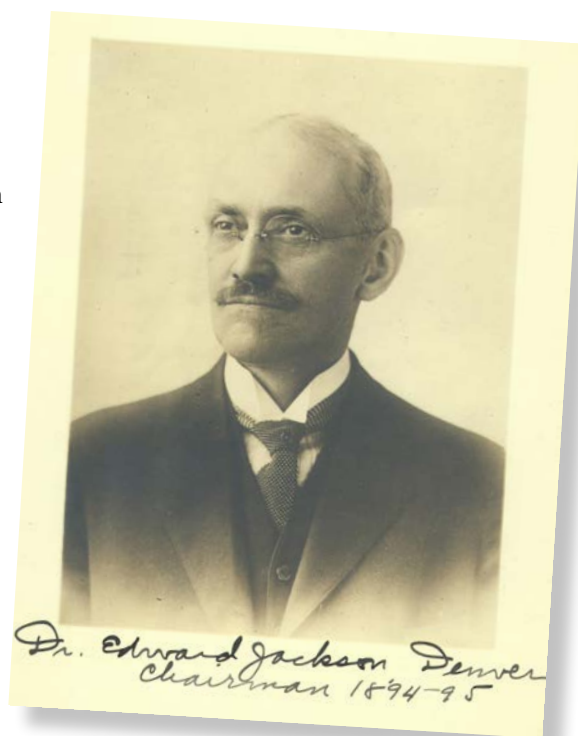


Fig. 1: “Glaucoma: A Symposium”, published presentations of the 1913 Chicago Ophthalmological Society meeting.

A Glaucoma Surgery: “So Safe, So Easy and So Certain”

the time did not differentiate open angle and closed angle glaucoma.

Maximilian Salzmann wouldn't describe gonioscopy for another year. It was recognized that the iridectomy, as described by Dr. Albrecht von Graefe, was only truly effective in cases of acute glaucoma. Once anterior synchia had formed it tended to be unsuccessful unless an inadvertent filtering bleb developed.

Mechanical measures for lowering the IOP included massage, vibration massage and suction massage. The Piesbergen instrument was placed over closed lids and vibrated at 3,000 vibrations per second. Manual massage with the thumb through the lid was used with as many as one thousand pulses. Another therapy was low voltage electrical current passed through the eye with the negative pole on the eye and the positive pole on the neck. This was employed for 10 to 15 minutes at a time twice a week. It was also felt that lowering systemic blood pressure might lower the IOP, and some authors even recommended periodic phlebotomy, removing 3 grams of blood per kilogram of body weight.

Examination techniques received little discussion. Although IOP could be measured with Schiøtz tonometry, it was usually estimated by palpation and expressed, for example, as “T+2.” Bjerrum's nasal visual field loss was recognized as a consequence of glaucoma but there was no mention that the visual field was measured routinely.

Optic nerve examination was described – not in cup-to-disc ratios – but in diopters of cup depth. Dr. E.V.L. Brown reported to having seen “A cup of 7D, reduced to 1D, in the course of a year after the tension had been lowered from 62 to 12.” Weeks described the development of peripapillary atrophy in patients with glaucoma, called a

glaucomatous ring. This is impressive given the equipment of the era and the lack of photography.

Some authors speculated on the underlying causes of glaucoma. One speculated that under physiologic conditions “the hydrostatic pressure within the eye and the skull are identical; it rises and falls simultaneously.” Lane points out that Edward Jackson “virtually puts aside the volumetric theory with his statement that” the balance of intra-ocular pressure is not maintained by the slight distensibility of the sclera-corneal coat.” Among the discussions of pathophysiology where descriptions of the lymph system of the eye and even of the cornea.

Abandoned Procedures

Most of the presentations described understandings and procedures that have long since been abandoned, much as many of our current understandings and procedures will be lost to history in another one-hundred years. However, one presentation was by an ophthalmologist whose ideas were very far ahead of his time; Edward Jackson, MD.

Described as the most important American ophthalmologist, Jackson was famous for his cross cylinder and other contributions to refraction. He was a founding father of much of organized American ophthalmology (founder of the American Board of Ophthalmology, first editor of the modern *American Journal of Oph-*

thalmology and first President of the American Academy of Ophthalmology and Otolaryngology).

Dr. Jackson had interests in cataract, infectious diseases and teaching. But what did he know about glaucoma? There were no peer-reviewed papers on glaucoma among his impressive publications, however his presentation in Chicago demonstrated that he had remarkable insight. There were two aspects of his presentation that were especially impressive. One was his opening paragraph (see Figure 2):

“It is convenient to start with the conception that glaucoma is increased tension of the eye-ball, plus the causes and effects of such increase; although a broad survey of the facts may reveal a clinical entity to be called glaucoma, without increased tension constantly or necessarily present, and cases of increased intra-ocular tension not to be classed as glaucoma.”

This sounds very much like the definition of glaucoma that we use today. Jackson recognized that glaucoma damage could occur in the absence of elevated IOP and that not everyone with elevated IOP will develop glaucoma. In 1857, Dr. von Graefe had described glaucomatous optic nerve damage without an elevated IOP (digitally estimated), but later abandoned this opinion. There were intermittent reports of “low-tension glaucoma” or “pseudoglaucoma” in the literature over the next decades.

But the original editions of some of the classic works on glaucoma (Duke-Elder (1941), Becker and Shaffer (1961), Chandler and Grant (1965), Redmond Smith (1965) all include elevated IOP in the definition of glaucoma. For example, Becker and Shaffer stated: “A definite diagnosis of glaucoma cannot be made unless the increased intra-ocular pressure has produced damage to the optic nerve.” Dr. Smith addressed those with glaucoma-like damage: “The

Etiology and Classification of Glaucoma

BY
EDWARD JACKSON, M. D.,
Denver.

It is convenient to start with the conception that glaucoma is increased tension of the eye-ball, plus the causes and effects of such increase; although a broad survey of the facts may reveal a clinical entity to be called glaucoma, without increased tension constantly or necessarily present, and cases of increased intra-ocular tension not to be classed as glaucoma.

Fig. 2: Opening paragraph written by Dr. Edward Jackson.

A Glaucoma Surgery: “So Safe, So Easy and So Certain”

tendency has been to apply the term pseudoglaucoma or ‘soft’ glaucoma to these cases, but some have regarded them as a special form of optic neuropathy due to unknown causes and not to glaucoma.”

Dr. Jackson also recognized the importance of the balance between IOP and systemic blood pressure.

“In the eye there is probably a normal equilibrium between blood pressure, tissue activity, and intra-ocular tension. This may be destroyed either by increasing the intra-ocular tension, or by lowering the tissue activity, or the blood pressure. ... Glaucoma is probably not so much an increase of tension as a loss of balance between intra-ocular tension and nutritional activity.”

In 1974, Sohan Hayreh would postulate nocturnal hypotension as a cause of worsening glaucoma in the face of normal IOP and publish proof of this in 1994 – 81 years after Jackson’s musings. It is humbling to appreciate that this man, who contributed so much on so many fronts, had such a sophisticated understanding of a disease that was not a focus of his practice or writings.

This trip into the distant past made me appreciate how much easier glaucoma is to manage today than it was for our predecessors. Hopefully those who follow along 100 years hence will feel the same about our current management.

I am humbled by the tremendous insights of ophthalmologists like Dr. Jackson and grateful for the shoulders upon which our current practices stand – Dr. Elliot’s trephine turned out to be neither “safe” nor “certain,” but was a necessary step towards the much safer trabeculectomy and the procedures that followed and will continue to evolve.

What We’re Reading This Spring 2019

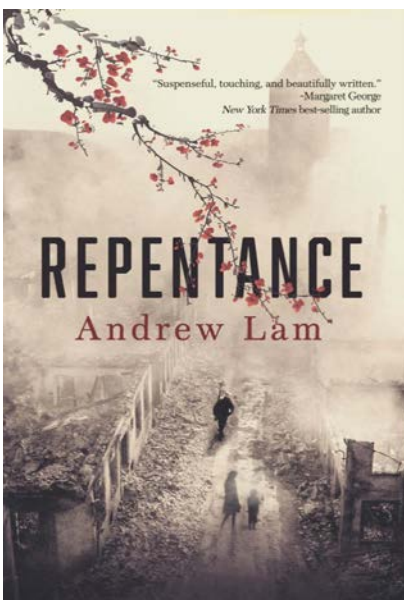
Book Review Editor, Thomas S. Harbin, MD, MBA

Senior ophthalmologists share the best of what they’re reading this Spring. Share what you’re reading and send your review to scope@aao.org.

Repentance

by Andrew Lam, MD

Reviewed by J. Kemper Campbell, MD



Four years ago, ophthalmologist Andrew Lam wrote his excellent first novel, “Two Sons of China”. His recently released second novel, *Repentance*, demonstrates his progress as a novelist.

Dr. Lam uses a more complex plot, switches perspectives between several characters and changes time frames separated by many years before the book has reached its denouement.

The book’s protagonist, Daniel Tokunaga, is a noted cardiovascular surgeon in 1998 Philadelphia. Although seemingly comfortable in his affluent surroundings and established marriage, and with his two children beginning college, his life is upended by a call from his embittered and alien-

ated father telling him that his mother has been in an accident. Returning to California after a decade’s absence, he discovers that everything he has believed about his life has been a sham.

By the book’s end, Daniel has been able to unravel long-ignored family secrets and paste together the myriad of unrelated choices he made which ultimately became his life. Lam’s novel, like any well-written work featuring the meaning of honor, family relationships and self-awakening, merits the reader’s attention.

The secondary purpose of any historical novel is to truthfully inform the reader about a bygone era. Few Americans today recall that Franklin D. Roosevelt signed an executive order in 1942 authorizing the forced relocation of 110,000 persons of Japanese ancestry into ten widely separated and isolated “evacuation camps” for the duration of the war. Even fewer readers will remember the 442nd Regimental Combat Team, which became the most highly decorated unit in the war against Nazi Germany with twenty-one Congressional Medal of Honor winners. The 442nd consisted of volunteers from Hawaii and the relocation camps who were all of Japanese heritage, many of them American-born. Lam’s unflinching description of the primitive conditions in the civilian camps and the brutality of the sacrifices the heroic unit made while fighting in France form the background of his fictional story.

“Repentance,” which could have easily been retitled “Redemption”, should be enjoyed by readers interested in historic fiction or the lingering damage caused by any war.

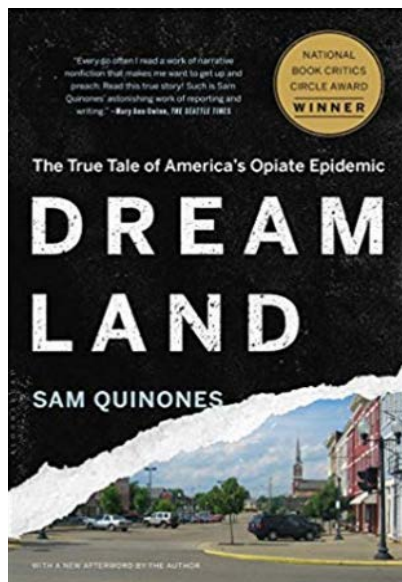
Dreamland: The True Tale of America’s Opiate Epidemic
By Sam Quinones

What We're Reading

Reviewed by John R. Stechschulte, MD

It is likely you had a friend who died, yet it was unclear how or why he or she died.

By reading this nonfiction book you will understand what may have led to the death of your friend as well as 200,000 other



Americans since 2000. Professor Marilyn Gates wrote in the *New York Journal of Books*:

“Opiate addiction is all about pain – the pain of addicts constantly seeking relief from torment and of friends and relatives dealing with the fallout. It is also about hunger – the hunger for profit of corporations and dealers on the dark side of the narco-world and the hunger of caring crusaders like Sam Quinones to stop this human tragedy.”

Quinones, a former *Los Angeles Times* reporter, wrote “Dreamland” in 2013 after investigating the over-prescribing and over-marketing that led to abuse of pain pills such as OxyContin. Soon after the highly addictive pain pills infiltrated middle- and upper-class American families came the introduction of inexpensive Mexican black-tar heroin to

small and medium sized cities.

The title “Dreamland” is the name of the community swimming pool in Portsmouth, Ohio where friends and families used to gather before these problems arose. The highest death rates were not in New York City or Los Angeles, but in my home state of Ohio.

During the 1990s, pain pills were prescribed for injuries and illnesses at high doses and for long durations. Doctors viewed this as necessary to treat pain, which had become a fifth vital sign. Many physicians had been convinced of a low likelihood of addiction based on a short paragraph in the *New England Journal of Medicine* that stated only 1% of patients had the risk of addiction.

Many pill mills were opened so patients could obtain huge quantities of these opioids. Big Pharma’s role in the epidemic is well-covered in the book, and some companies’ roles in this problem will soon be revealed in court.

The black-tar heroin was brought to the U.S. by several families from the small city of Jalisco, Mexico. These Mexican families established heroin cells in the U.S. that ran much like pizza delivery companies. Drivers earned a low weekly wage by selling small quantities of potent heroin that was seldom cut or used by the dealers.

The families were rarely detected because they avoided violence, marketed to the well-to-do and smuggled by hiding small bags of heroin in their mouths. If arrested, these young men could only be deported. They would be replaced in a few days by a new young Jalisco driver, in an old car with a cell phone. The calls would come to the driver with a code about the delivery corner of address. Quinones offers minute details about how widespread this delivery system had become and how it was led.

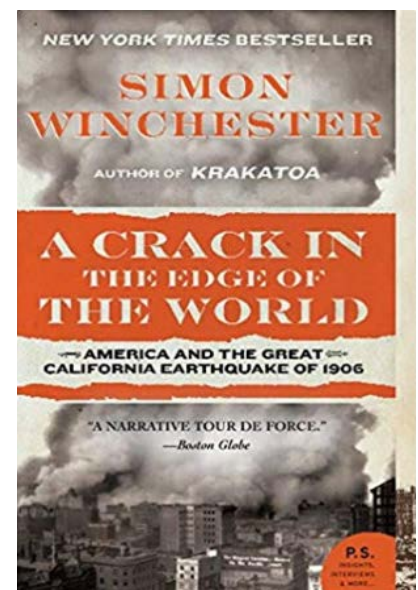
In the final chapters of this book, the author expresses a sense of hope. Now more families that lose a child to overdose are admitting that they were struggling with addiction. Some families are becoming advocates for intervention, treatment, government funding and even research.

A Crack in the Edge of the World: America and the Great California Earthquake of 1906

By Simon Winchester

Reviewed by Thomas S. Harbin, MD

Our annual meeting this fall is in San Francisco. If you are interested in the history of the city and the big earthquake of 1906, this book is for you. It covers the history of California as well as San Francisco. You will learn about the early settlement, the gold rush



and especially the natural history.

The title refers to the earthquake of 1906, a huge event that was measured over the entire world. Winchester clearly explains plate tectonics and the new (1960s) discoveries of worldwide geology, not just the San Andreas fault and the plate movement that created the earthquake.

If you have time, drive an hour north to Olema, the site of the

What We're Reading

most damage. Still standing in the Point Reyes National Park is a fence where the Pacific side is 31 feet north of the eastern side. You can straddle the two plates, face south toward the city and imagine your right foot suddenly moving 31 feet to the north.

This area is seismically very active still with plate movements measured in the inches per year. San Francisco suffered a major earthquake in 1989, but plates different from those of the San Andreas fault were involved. Consequently, Winchester quotes a 60 percent chance of the “big one,” another huge quake similar to the one in 1906, happening before 2032, just 13 years from now.

When and if this happens, we should all hope that our headquarters and new museum will not be severely impacted.

What Went Wrong?: The Clash Between Islam and Modernity in the Middle East

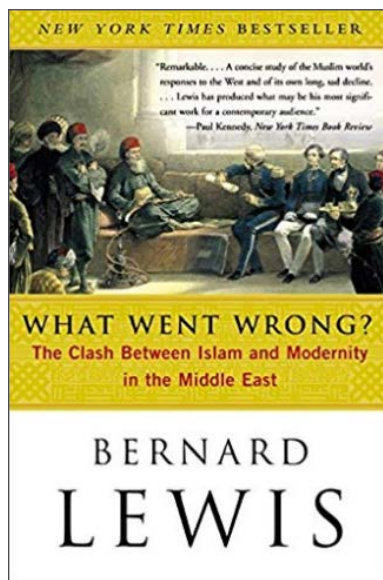
By Bernard Lewis

Reviewed by Samuel Masket, MD

Bernard Lewis, who passed away in 2018 at nearly 102 years old, was an emeritus professor of history at Princeton University and an eminent Middle East scholar.

Lewis' book is a relatively short, but remarkably concise and comprehensive analysis of the conflict between the West and the Middle East that led up to the 9/11 attack on New York's twin towers. It's remarkable that the book was being printed at that moment, yet presciently presaged its eventuality.

Lewis' view is that while Islam once ruled a good portion of the world and had great scholars, mathematicians, etc., it failed to modernize and hence fell behind the progress that the West made through and after the Renais-



sance. In particular, he cites the role, or lack thereof, of women in the Islamic world, suggesting that half of the population's potential assets are not mined.

Lewis is also careful to expose the culpability of the West, Britain and France in particular, for drawing inappropriate boundaries after World War II, leading to cultural and religious misalignment. Moreover, the West's insatiable thirst for oil evolved into what he calls treacherous “petro politics.”

There is obviously much fault to go around, but Lewis presents the arguments in a very clear manner. And, despite a very complex subject, Lewis' style allows for easy reading. This book is a must for anyone interested in contemporary world history.

There There

By Tommy Orange

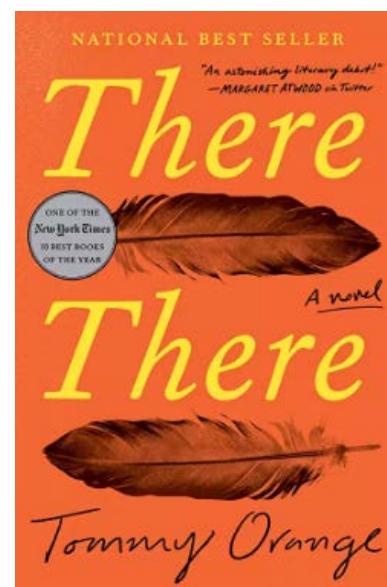
Reviewed by Susan H. Day, MD

There There is the first novel written by Tommy Orange, who describes what it's like to be a Native American Indian in contemporary times. It is beautifully written as a fictitious chronicle of individuals' stories. The inherited culture, the struggles with alcoholism, the burden of idyllic time, and the prevailing sense of being excluded are exquisitely described.

Underpinning his perspective seems to be that the innate talents and needs of this population have been suppressed. Life in the openness of plains, communities where roles were defined, and simplicity of living within a natural world sustained their being. It was as if nature nurtured their culture, and that their culture depended on a certain life style in response to their surrounds.

The good guy, bad guy cowboys and Indians era as portrayed in the many drive-in movies we watched showed one perspective, to the detriment of our historical understanding of native Americans. When life on the prairies was forcefully replaced with urban environments, restraint of movement despite speedy modes of transportation, and economic models centering on skills not honed historically, it was as if their culture went away. Attempts to retain elements (e.g. native dance and attire) which previously sustained them became superimposed with realities of other cultures' ways.

In essence, a way of living was extinguished, and there is a collective soul that suffers. Mistreatment centuries ago continues to take its toll. It is a very poignant snapshot of a regrettable chapter in history.



News from the Foundation Chair

Gregory L. Skuta, MD, Chair, Foundation Advisory Board

I am pleased to be your new Foundation Advisory Board (FAB) chair!

I have gladly accepted the task of guiding the board for the next three years and will be honored to collaboratively develop fundraising programs and contribute to the future of the Academy's foundation. I am always open to dialogue, so don't hesitate to email me if you have any ideas, questions or comments. It is very exciting to see upcoming developments for the Museum of the Eye, foundation activities at AAO 2019 in San Francisco, the Orbital Gala and the Partners

for Sight program. The future of ophthalmology looks bright, and I am looking forward to spending the next three years leading a welcoming community such as ours! Feel free to contact me at gskuta@aao.org.

The Museum of the Eye Campaign Marks Its Progress With \$8.5 Million

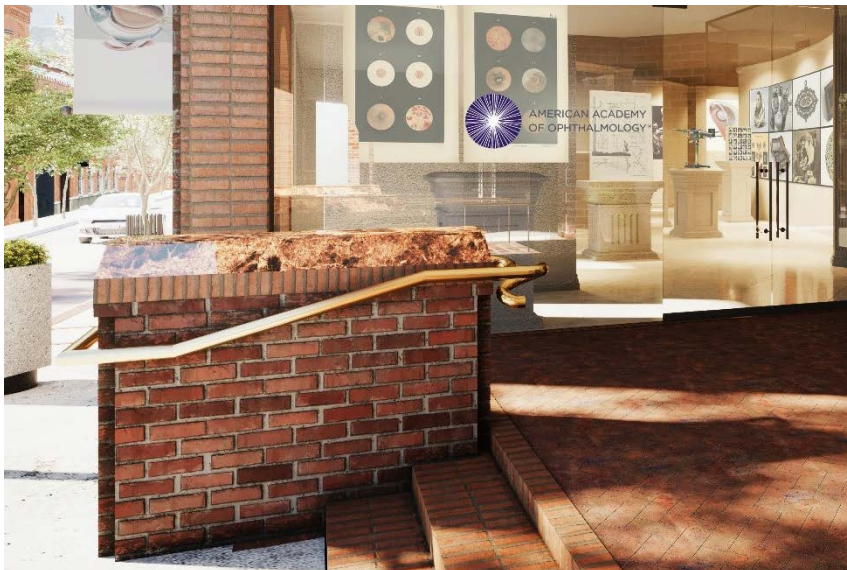
When I first began my studies in ophthalmology, I thought of the practice of medicine in a more medical, technical and clinical way. But ultimately, I became an ophthalmologist to

serve those who had eye diseases and help them lead better lives. Today, after providing medical and surgical eye care for more than 30 years, I see our profession in a new and different light. I want to help the Academy educate the entire world about the importance of their eyes and how they function.

As ophthalmologists, we should all be proud of our ability to provide solutions to real-world problems. Imagine the knowledge and history that could be shared through the influence of the fine members of our community. Through the Truhlsen-Marmor Museum of the Eye, we are beginning to do just that!

As you may have heard, we began fundraising for a new, brick-and-mortar museum a year ago under the leadership and vision of Academy CEO David W. Parke II, MD, and the Board of Trustees. I am pleased to say that as of now, our Museum of the Eye campaign has raised generous donations totaling \$8.5 million toward our goal of \$12 million. We have made great progress toward a soft opening during AAO 2019 in San Francisco and a grand opening for the public in early 2020 — and we have you to thank!

There are many opportunities for members who would like to support the new Museum of the Eye, from naming opportunities, one-time gifts or a five-year pledge. To learn more about the campaign, please contact the executive director of the foundation, Tina McGovern, at tmcgovern@aao.org.



The new Museum of the Eye will be built on the ground floor of Academy headquarters in San Francisco. Stanley M. Truhlsen, MD, and Michael F. Marmor, MD, gave two of the largest gifts in foundation history to launch the Museum of the Eye campaign. This new space will attract visitors from around the world with innovative, interactive displays and will showcase some of our 38,000 ophthalmic artifacts, previously only available online or by appointment.



At the 2018 Orbital Gala in Chicago (left to right): Prem S. Subramanian, MD, PhD; Courtney E. Francis, MD; Lynn K. Gordon, MD, PhD; and Peter Quiros, MD.

Mark Your Calendars for the 2019 Orbital Gala at the Palace Hotel

Save the date and join us for the 16th Annual Orbital Gala on Oct. 13 at the Palace Hotel, San Francisco. This year's Hollywood-themed gala will be one to remember with a cocktail reception, dinner, silent auction and live music at this landmark hotel in the "City by the Bay."

This year's Orbital Gala will honor Bruce E. Spivey, MD. Dr. Spivey is a highly renowned educator and clinician, and a transformative leader who served as the Academy's first executive vice president and chief executive officer from 1976 to 1992.

Among countless accomplishments, Dr. Spivey helped found the Ophthalmic Mutual Insurance Company and initiated the National Eye Care Project, now called EyeCare America®.

These feats could not have been achieved without Dr. Spivey's

visionary leadership and limitless dedication to the Academy.

To make a tribute gift and place a personal message in Dr. Spivey's tribute book, contact Claire Lewis at clewis@aao.org or +1 415.447.0356 by Sept. 1. Purchase Orbital Gala tickets starting May 14 at aao.org/gala.

Partners for Sight

You Can Make a Bigger Impact Than You Ever Thought Possible – Learn how \$1,000 can make a difference.

"The Academy represents the very best that medicine has to offer," said Partners for Sight donor Anne L. Coleman, MD, PhD. "The amazing innovations and contributions our members make to our patients and our profession keep me optimistic and enthusiastic about our future. I support the Academy foundation to help keep this crucial community active and empower our patients' lives."

SCOPE

The Senior Ophthalmologist Newsletter

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