

Paradox of Progress

Sophisticated laboratory methods provide contemporary clinicians with unprecedented diagnostic information, but in so doing, risk de-emphasizing the physical examination upon which previous generations were much more dependent and therefore more adept.

Physical Examination of the Heart and Circulation



PERLOFF

PHYSICAL EXAMINATION *of the* HEART AND CIRCULATION

SECOND
EDITION

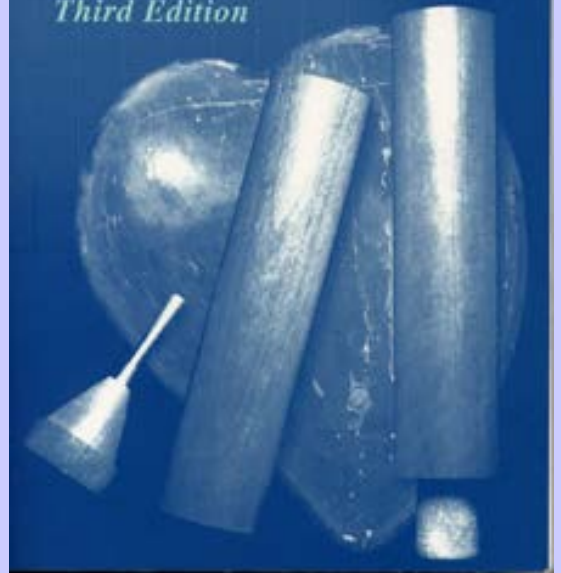


JOSEPH K. PERLOFF

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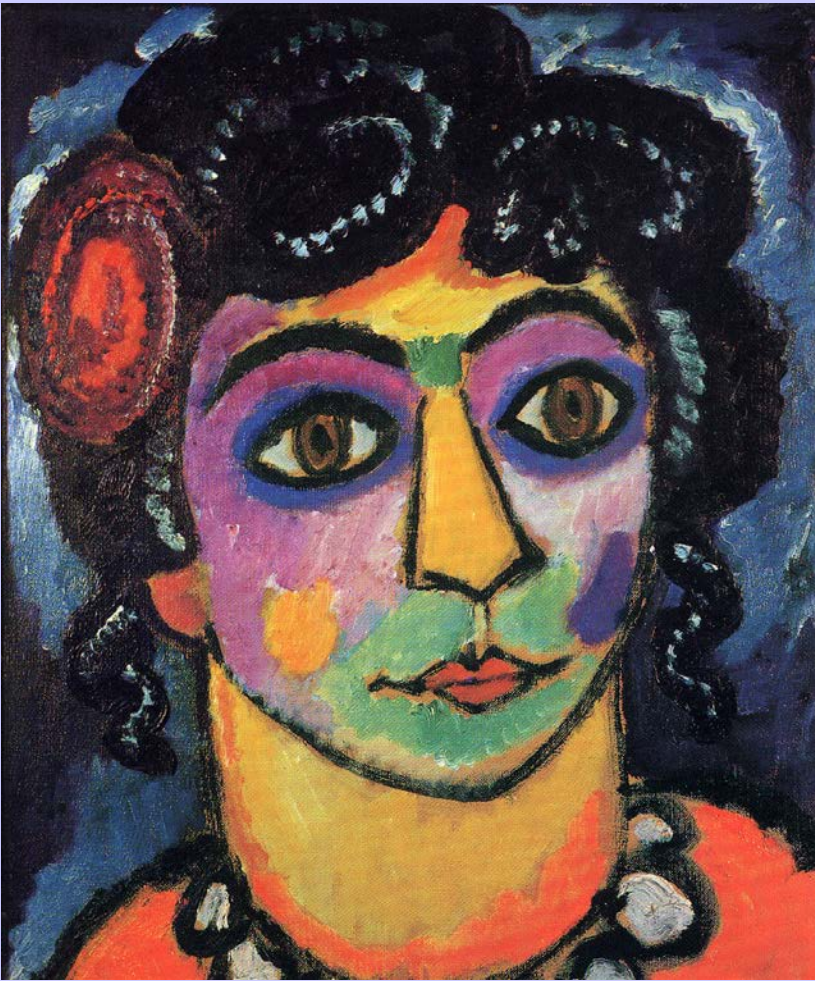
Physical Examination of the Heart and Circulation

Third Edition



The face is the soul of the body.

Wittgenstein



Jawlensky 1912
Munich



c. 560-550 B.C. Athens,
Akropolis Museum

1) GENERAL APPEARANCE



Pickwickian Syndrome: Burwell et al. Am. J. Med. 1956

Charles Dickens observed disease with the eye of an expert clinician, and C. Sidney Burwell writes with the expertise of a novelist. In describing a 51-year-old obese business executive who was hospitalized because of somnolence, Burwell wrote:

“The patient was accustomed to playing poker once a week, and on the crucial occasion he was dealt a hand of three aces and two kings. According to Hoyle, this hand is called a ‘full house.’ Because he had dropped off to sleep, he failed to take advantage of this opportunity. A few days later, he entered the Peter Bent Brigham Hospital.”

The Pickwickian Syndrome

C. Sidney Burwell,

圖腑六關三手右推女



For male patient, feel
left hand pulse first



25. For female patient,
feel the right hand pulse
first



The Arterial Pulse

Paradox of Progress

With careful practice, the trained finger can become a most sensitive instrument in the examination of the pulse.

Sir James Mackenzie 1908

Sphygmographie de Marey 1860

"Le but que nous avons poursuivi, dit Marey, dans la construction de notre sphygmographe, est le suivant : enregistrer les pulsations d'une artère, non seulement leur fréquence, leur régularité relative, mais encore leur amplitude relative à chacune d'elles. Ces résultats sont obtenus par aucun autre moyen."





Language of the heart

"...with each movement of the heart, when there is the delivery of a quantity of blood from the veins to the arteries, a pulse takes place and can be heard within the chest."

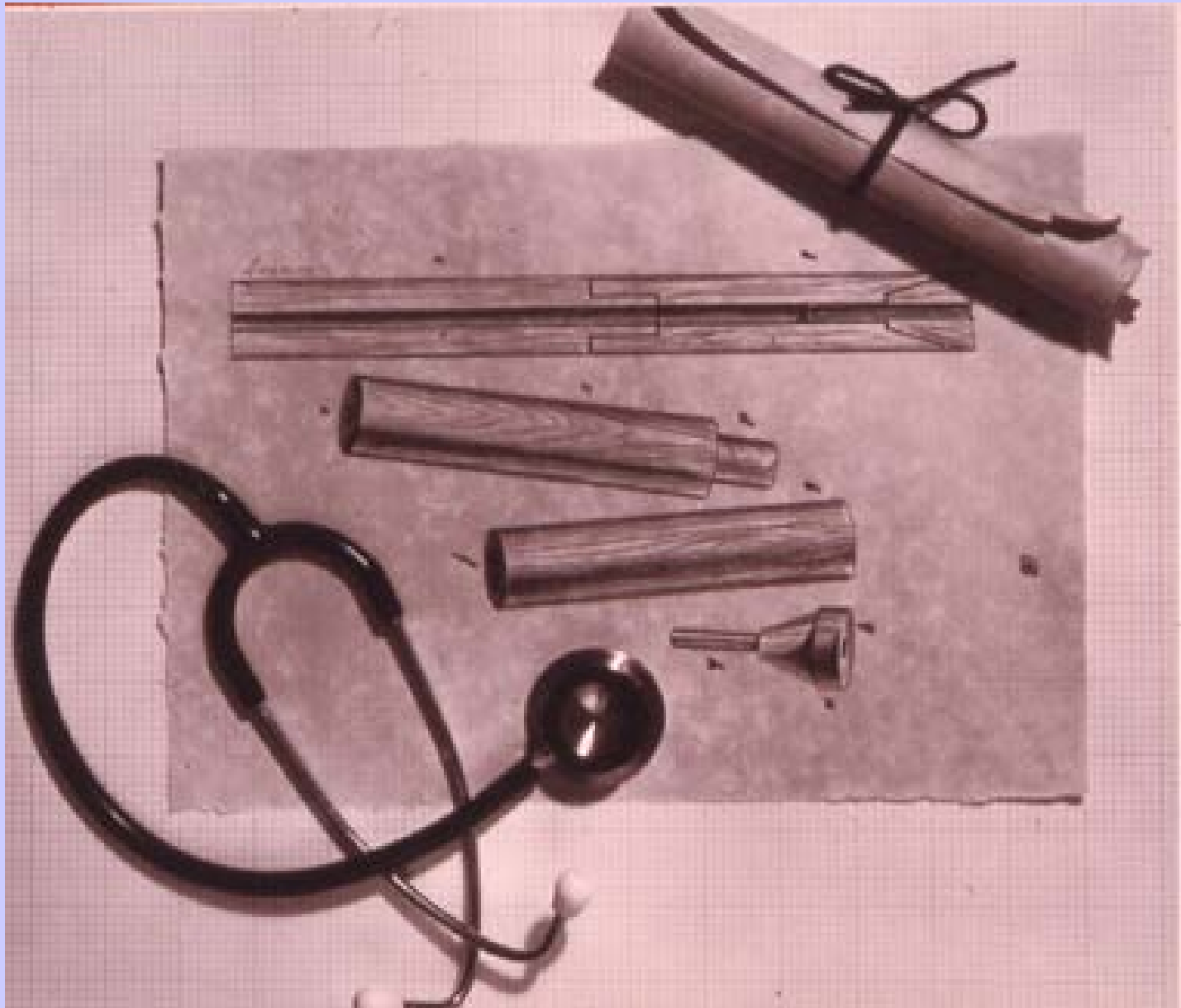
De Mortu Cordis (1628)

Direct Auscultation-- Progress



A Game Played by Urchins

Further Progress





Adalat[®]
Nifedipina

Nifedipina
Pesquisa, Síntese
e Segurança Bayer.

Produtos Farmacêuticos
Bayer 

The image shows a white paper bag with a stethoscope resting on it. The bag features the text 'Adalat[®]' in large blue letters, with 'Nifedipina' in smaller black text below it. Further down, it says 'Nifedipina Pesquisa, Síntese e Segurança Bayer.' and 'Produtos Farmacêuticos Bayer' with the Bayer logo. The stethoscope has a silver chest piece and black tubing. The background is a light-colored, wrinkled fabric.

Paradox of Progress



Thoracic Percussion

*Inventum Novum Ex Percussione
Thoracis Humani, Auenbrugger, 1761*





Eighteenth Century

“I here present the reader with a new sign which I have discovered for detecting disease of the chest. This consists in percussion of the human thorax, whereby, according to the character of the particular sounds thence elicited, an opinion is formed of the internal state of that cavity.”

Auenbrugger

Progress

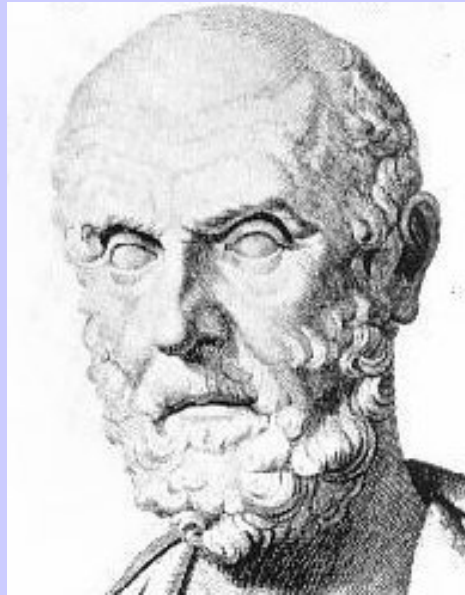
***Laennec's* discovery of the stethoscope and *Auenbrugger's* discovery of percussion advanced physical diagnosis beyond anything previously imagined.**

The Power of Touch
in
Clinical Medicine

The therapeutic value of physical contact between physician and patient.



Throughout history, the appearance and disappearance of disease was believed to result from the actions of the gods in direct response to human behavior.



Hippocrates (460-377 BC) replaced supernatural temple medicine in ancient Greece with rational medicine, a change that coincided with the Golden Age of Athens and the rational world view of pre-Socratic philosophers.

The Nature of Human Illness

Old diseases vanish

New diseases appear

Goethe's Autobiography 1846-47

Smallpox

“ The illness raged through whole families killing or disfiguring many children. Now the disease struck our house too, and attacked with virulence. My whole body was dotted with pocks, and my face was so completely covered with them that I lay blind for several days, suffering greatly. Every possible way to alleviate my condition was tried, and I was promised whatever my heart desired if I would only lie still and not make things worse with rubbing and scratching...

Disease Versus Disease

One Infectious Disease Prevents Another

Vaccinia (cowpox) prevents variola (smallpox)

Vaccination is probably the most significant medical advance of the last two centuries. Before vaccination, smallpox killed 1 of every 10 people in Europe.

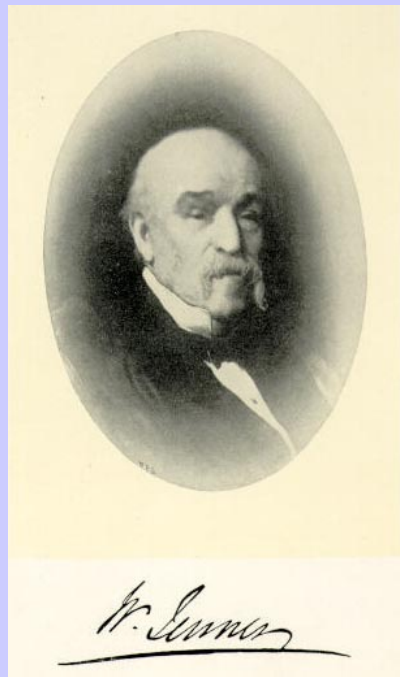


Lady Mary Montague 1718

Smallpox

It was well known that one only got smallpox once. In the Islamic world it was the habit to "engraft" people with the dried smallpox pustule because this provided protection.

Lady Mary Montague, wife of the British ambassador to Constantinople, learned of this practice called variolation or inoculation, and introduced it to Britain after first having her own children treated.



Edward Jenner 1749-1823

“... what renders the cow-pox virus so extremely singular, is that the person who has been thus affected is forever after secure from the infection of the smallpox; neither exposure to the viriolous effluvia, nor the insertion of the matter into the skin, producing this distemper.”



Gillray, Cowpox Vaccination Paradox of Progress



Eradication of Smallpox

May 8, 1980

**The Thirty Third World Health Assembly
“ declares solemnly that the world and all
its peoples have won freedom from
smallpox.” (Resolution 33.3, Geneva,
Switzerland)**

HUMAN IMMUNODEFICIENCY VIRUS

Paradox of Progress

Acquired immunodeficiency syndrome (AIDS), caused by the diabolically unique human immunodeficiency virus (HIV-I), has profoundly changed contemporary society and medical practice. Old infectious diseases have reappeared—smallpox, tuberculosis.

There have been no naturally occurring cases of smallpox anywhere in the world since 1977. A high- or moderate-risk case of smallpox is a public health and medical emergency.

Report ALL HIGH- and MODERATE-RISK CASES immediately (without waiting for lab results) to:



1918 Influenza Virus



National Museum of Health, via Associated P

patients in an emergency hospital at Fort Riley, Kan., in 1918. As many as 50 million died worldwide.

Drug Resistant Tuberculosis

Of the 9.5 million new cases of tuberculosis worldwide every year, about 435,00 are resistant to standard medications.

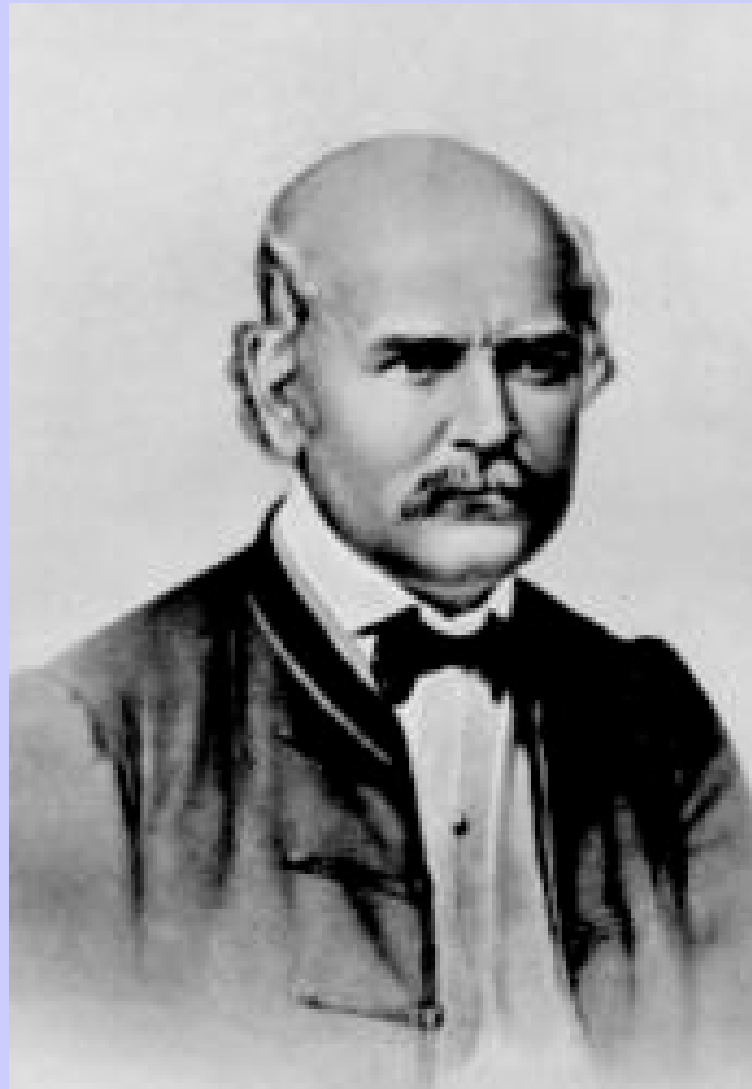


A Paradox of Progress

“The *vital spirit* is engendered by the mingling of inspired air with the more subtle portion of the blood which the right ventricle of the heart communicates to the left.” *Michael Servetus*

The date of Servetus' birth is disputed, but the date of his death is beyond doubt because the *vital spirit* was considered heresy by the Calvinists who burned Servetus at the stake in 1553.

Ignac Phillip Semmilweis, 19th Century





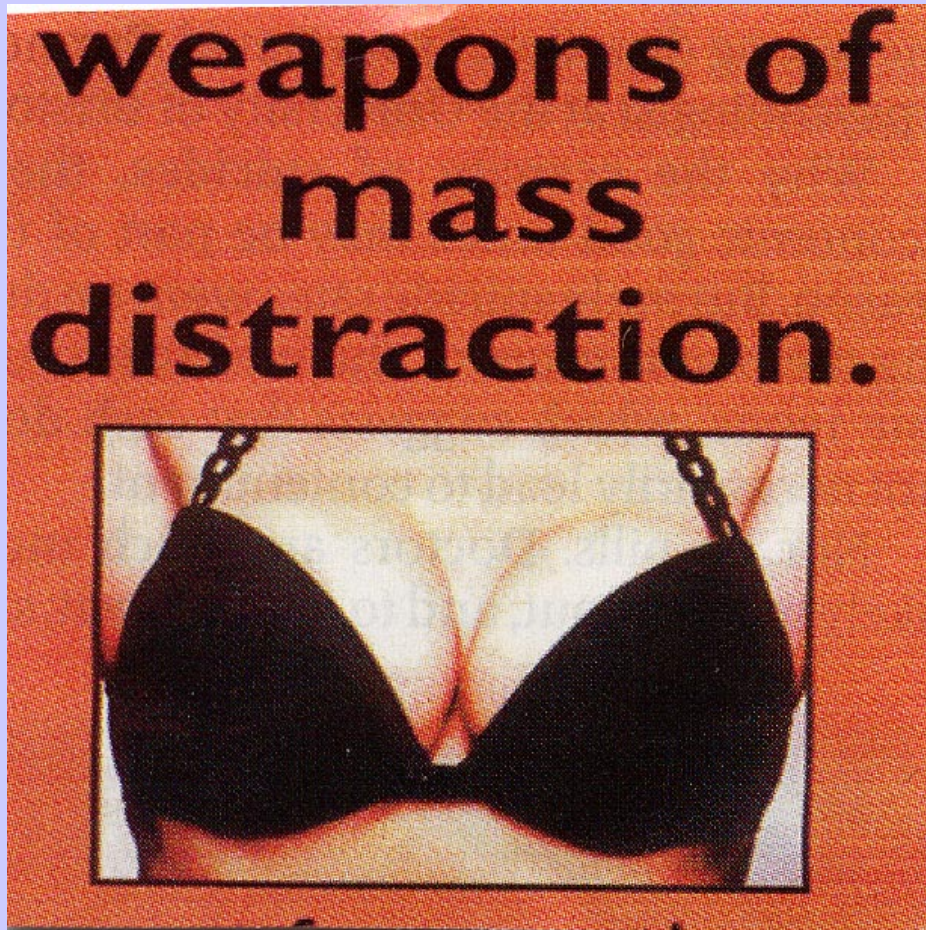
Jealousy, Stupidity, Ingratitude: A Paradox of Progress

Ignac Semmelweis's discovery of the etiology and prevention of puerperal sepsis (1847), his agonizing travail to achieve acceptance of his doctrine followed by his madness and tragic death, is one of the most poignant stories in the history of medicine.

Progress

Syphilology was once an important medical subspecialty. Before the advent of penicillin, heavy metals were one of the most important methods of treatment. In the nineteen fifties, a major textbook of *Syphilology and Dermatology* stated in its *Frontpiece*,
“*One night with Venus and the rest of your life with Mercury.*”

Paradox of Progress



**Sexually
Transmitted
Diseases**

Treatment

vs

**The world's most
ancient profession**

Human Illness

**Natural Occurrence
or
Self-imposed Affliction?**

**“A custom
loathsome to the
eye, hateful to the
nose, harmful to
the brain and
dangerous to the
lungs.”**

**1604, James I
King of England**



Virginia Slims
Equality for Women--
Progress ??

Equal cancer

Equal emphysema

Equal heart disease



**\$1 BILLION IN ADVERTISING
TO PRODUCE
\$14 BILLION IN ILLNESS & DEATH**

Guide To Coronary Collapse

Go to the office evenings, Saturdays, Sundays, and holidays.

Take your briefcase home each evening. This provides opportunity to review the troubles of the day.

Accept all invitations to meetings and banquets, and membership on all boards, committees and commissions.

Do not eat a restful, relaxing meal. Always plan a conference for the noon hour.

Golf, bowling, hunting, billiards, and gardening are a waste of time and should be avoided.

Never take all the vacation time to which you are entitled.

Avoid physicians, but if you do go, ignore their advice.

Never delegate responsibility. Carry the entire load yourself.

Give a lot of thought to world situation.

In a word, worry about all things at all times. You alone are responsible for the future of mankind.

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Dr Maude Abbott at the time of her graduation, 1894



Before World War II, congenital malformations of the heart were regarded as *hopeless futilities*, an appropriate occupation for the few women in medicine. Maude Abbott was advised to occupy herself with the collection of uncatalogued specimens at McGill, and Helen Taussig was advised to occupy herself with the *hopeless futilities* in the children's clinic at Johns Hopkins. Congenital heart disease in adults was not even a theoretical consideration.



Immense technical resources are at our disposal, permitting remarkable anatomic and physiologic diagnoses and astonishing surgical feats. However, cures in the literal sense are few and far between. A paradox of progress is a new population of patients—adults with congenital heart disease. In developed countries, about 85% of infants with CHD become adults who require medical care.





Ahmanson/UCLA

Adult

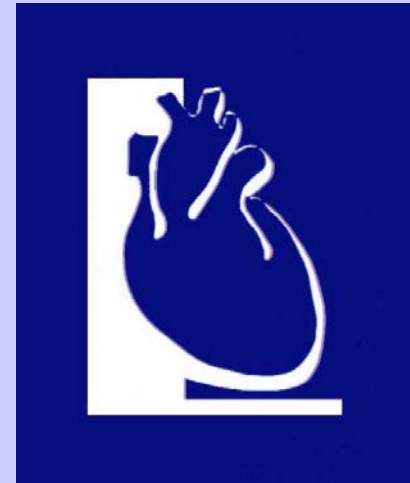
Congenital

Heart Disease

Center



UCLA CENTER FOR THE HEALTH SCIENCES



Adult Congenital Heart Disease

EPILOGUE

Thus far, with rough and all-unable pen,
Our bending author hath pursued the story.

Pediatric cardiology evolved after the Second World War because advances in diagnostic methods and in surgical management of CHD created an air of optimism in infants who had been considered hopeless futilities. The early years of this fledgling specialty were not easy because traditional biases weighed against innovation.

Congenital heart disease in adults
evolved because the success of
pediatric cardiologists and pediatric
cardiac surgeons profoundly
changed survival patterns. The early
years of this fledgling specialty were
not easy because entrenched biases
weighed heavily against innovation.

When those of you who are destined to lead look ahead, you will often confront regressive opposition. And when you look back, there may be no one following. But vigor can be derived from opposition, and remember !!!



Paradox of Progress

When we think of the world's future, we always mean the destination it will reach if it keeps going in the direction we can see it going in now; it does not occur to us that its path is not a straight line but a curve, constantly changing direction.

Ludwig Wittgenstein