

August 1966

Morals and the Medical Scientist

Armand J. Quick

Follow this and additional works at: <http://epublications.marquette.edu/lnq>

Recommended Citation

Quick, Armand J. (1966) "Morals and the Medical Scientist," *The Linacre Quarterly*: Vol. 33 : No. 3 , Article 19.
Available at: <http://epublications.marquette.edu/lnq/vol33/iss3/19>

Morals and the Medical Scientist

ARMAND J. QUICK, PH.D., M.D.

The story is told that a man approached a group of artisans and inquired what they were doing. From one he received the answer that he was working for five francs a day; from another, that he was laying stones; but from the third, with luster in the man's eyes, that he was building a cathedral. I like to believe that the scene was Chartres and that this man with other kindred spirits brought into being that gem of architecture — the Cathedral of Chartres. There are many cathedrals and not all are built of stone and mortar. Some are allegorical or figurative, like the structure of medicine. This too was built by artisans, many of whom worked merely to gain a livelihood while to others it meant the humdrum of a profession, but to a few who had vision, dedication and inspiration, the structure of medicine took form and to them we owe not only the foundation but also its spires.

What about the rules of conduct or code of morals for these builders we now call medical scientists? Like all men they are first of all human beings with the same basic instincts and weaknesses in which greed and stupidity often dominate, but they are also endowed with idealism. Many are keenly aware of the privilege of working in a field that can add to human happiness by alleviating suffering, improving health and saving lives. Like the artisan of the story who recognized his good fortune in building a cathedral

instead of a bull ring or massive fortress, so the medical scientist should realize his privilege and his obligations. He owes to society this opportunity and one of the best means to repay his debts is to seek truth unselfishly and without compromise. How beautifully this is illustrated by Gregor Mendel, who painstakingly from a simple experiment of growing peas and after careful observations which he meticulously recorded, deduced the theory of heredity that bears his name. It is doubtful whether he gave any thought to the potential value of his work.

Though the aim of medical research need not be practical, one can justifiably question the morality of eschewing any medical study that might lead to results that could help mankind. This attitude is expressed by a well-known scientist: "For many years before World War II we were very proud of the fact that we were working on a problem that seemed to have no practical relation to medicine whatsoever." One may ask why be proud because it had no practical value — even Nobel prizes have been given for practical contributions. Innovation in pure science may connote superior thinking but it may also be a fetish that blinds one to the needs of humanity. Not all great advances of science were made by mental giants such as Isaac

Dr. Quick is Professor Emeritus of Biochemistry, Marquette University School of Medicine.

Newton or Willard Gibbs. Perhaps the simple milkmaid who told Jenner that those who had cowpox did not contract smallpox deserved a distinguished service award.

Because the scientist is human he does not escape man's primitive instincts, especially greed — that compelling force that underlies the grim law of the survival of the fittest. He lives in a competitive world and to succeed as a leader he must lose no opportunity to foster his progress and to win recognition. If he falls by the wayside and becomes satisfied to follow rather than to lead or in other words, be willing to become a layer of stones, the temptations that arise from greed or from its more sophisticated forms, ambition and aggressiveness, are minimized. He will add no new spires but with honest endeavor he can contribute to the solidarity of the structure.

To the one who has the awareness of building a cathedral will come the joy and exhilaration of creativeness which are difficult to describe but can be gleaned from a statement of Jenner after he had successfully developed vaccination against smallpox: "The joy I felt at the prospect before me of being the instrument destined to take away from the world one of its greatest scourges was so excessive that I sometimes found myself in a kind of reverie."

The right of the scientist to enjoy the fruits of his labor is obvious but often denied him. The scientist is human and it is natural that he desires recognition. Even Mendel trained as he was in the practice of humility was not indifferent to the neglect his work received. Philo-

sophically he remarked: *Mein tag wird schon kommen*. In his case it was fortunate that his theory was ignored for 35 years. Had it been given attention, it is likely that so much hostile criticism would have been levied against the theory that poor Mendel would have been discredited and deprived of the acclaim he rightfully attained by a later generation that had no envy for a dead man.

An original and valid contribution has a right to recognition and the scientist does not violate the rule of modesty or humility by fighting for this right, provided he is thoroughly honest. Truth can easily be distorted by omissions, slight distortions and misinterpretations of data, especially when it is supposedly a new discovery. A scientist to deserve the honor of being called great must be fair to his fellow scientists. The desire for recognition is justified when its objective is to promulgate truth and not merely to gain self-aggrandizement.

Priority by itself is of minor importance and the bitter polemics that it often engenders are soon forgotten. Even men who made outstanding contributions that were accepted and recognized without controversy are rarely remembered one or two generations after their death. How many biochemists are familiar with the name of Chevreul? Yet this man not only lived to be 103 years old but laid the structure of our knowledge of the chemistry of fats. Most men are satisfied knowing that their work served as another stepping stone in the ultimate solution of a problem. A few however who, by chance, luck, or a superior

mind, become, as Jenner expressed it, the "instrument" to a new concept that affects the welfare of mankind, present a special moral problem.

The medical scientist who has made a discovery or who has developed something that is of direct benefit to man has a moral duty to try making it available. Modesty under these circumstances is not a virtue. Perhaps this problem is most effectively illustrated by Semmelweis and Oliver Wendell Holmes. Both independently deduced the contagiousness of puerperal fever and both warned of the danger of transferring the contagious agent from the postmortem room to the woman in labor. The hostile opposition that these two men faced is history. Semmelweis fought for his idea literally with clenched fists and sleeves rolled up and died so to speak in the struggle. Holmes, a gentleman from Boston, wrote a learned paper and after vicious attacks by two great authorities from medical centers in Philadelphia wrote another paper, also in impeccable style and eloquent English, to defend his views whereupon he gave up his struggle. Women continued to die in childbed. Semmelweis was dead and Holmes had become a famous literary figure. Yet it is said Holmes in his heart felt more satisfaction from his two essays on puerperal fever than from the poetry and prose he wrote throughout his long life.

History is replete with similar stories. One of the lesser known is that of the great clinician who lived in the middle of the last century, Armand Trousseau, who with Jules

Guerin in 1838 found fish oil beneficial in treating rickets. Though this disease was one of the most devastating diseases of civilized man, their work was ignored and belittled. Even Osler regarded cod liver oil as a useless grandmother's remedy. Who should be blamed for those 80 years in which rickets was allowed to run rampant — crippling and killing — until Mellanby and Chick rediscovered what Trousseau had found?

Perhaps if the visitor to the site of the cathedral had continued his inquiry he might have found a fourth man whose answer was: I am in charge of the plans for this cathedral and I see that new and untried ideas are barred. His position is understandable, whether he supervises a cathedral of stone and mortar or the figurative structure of medicine. He knows well the multiple panaceas that are constantly offered both by the sincere and by the charlatans.

To those then who are in a position of power and authority, the stringent code of morals that accompanies responsibility must include tolerance for new ideas, an open-mindedness, justice and a modicum of kindness. When unreasonable obstinacy, selfish pride, and envy are the motives that compel a man to suppress an idea, he should remember the statement Jenner made in anguish: "Vaccination will go on just as well when I am dead as it does during my existence, probably better, for our obstacle will die with me — envy." He should then ask himself whether he will be a party to those who would deny the benefits of vaccination to mankind.