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## John T. Edsall: an appreciation

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The following remarks are a revised version of the presentation of Professor Edsall for the award of the Willard Gibbs Medal of the American Chemical Society in 1972. In the succeeding 30 years, he continued to be a source of wisdom and kindness to an increasing number of scientists, adding to the large group that regard him with admiration and affection. Furthermore, he maintained his resolve to speak out and write about issues at the interface of science and public policy, where he had been a voice of reason and concern. The encomium composed three decades ago (and never published) is eminently appropriate in a Festschrift observing John Edsall's centennial year.

## Concise curriculum vitae

Born, November 3, 1902; A.B. Harvard, 1923; M.D., 1928; Postgraduate, Cambridge University, 1924–1926.

Married Margaret Dunham, May 1, 1929.

Tutor in biochemical sciences, Harvard, 1928–1972. Chairman board of tutors in biochemical sciences, Harvard, 1931–1957.

Professor of Biochemistry, Harvard, 1951–1973; Emeritus Professor, 1973–.

Editor-in-Chief, Journal of Biological Chemistry, 1958-1968.

Recipient of Passano Foundation Award, 1966.

Recipient of Gibbs Medal, American Chemical Society, 1972. Recipient of R.H. Abelson Award, Am. Assoc. Advancement of Science, 1989.

Member, National Academy of Sciences.

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Member, American Philosophical Society. Fellow American Academy of Arts and Sciences.

Honorary Degrees: University of Chicago, Case Western Reserve University, New York Medical College, University of Michigan, University of Göteborg.

Books published: Proteins, Amino Acids and Peptides (with Edwin J. Cohn), 1943;

Biophysical Chemistry, vol. I (with Jeffries Wyman), 1958.

Research: Size, shape, structure and function of proteins, including those of muscle and blood.

A conventional biographical sketch of John T. Edsall is accessible in several sources. One is presented in the paragraph above. It is modest in tone, obviously based on information supplied by a very reliable source, probably John Edsall himself. I say this because I recognize a few missing items in this biography. So let me go through this vita with you and add a few side-notes.

At the outset, the biographical sketch states that John Edsall did his undergraduate work at Harvard, his graduate work at Harvard, his research in Harvard, and that he has held only one academic appointment in his entire life—at Harvard. Furthermore, I can add parenthetically that when he was a student, his father was Dean of the Medical School at Harvard. Let me ask you then, where

<sup>1</sup> Dean David Edsall is widely remembered for his perceptive comments during an address at commencement ceremonies for medical students at Harvard Medical School:

"Half of what you have been taught is wrong; even worse, I don't know which half".

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do you think he was born? Cambridge, no. Boston, no. His birthplace was 300 miles from Boston, in Philadelphia. You might think this is a trivial point, but it is very pertinent. When I first learned these details some years ago, they explained something that had long puzzled me. I never could understand how a (presumably) Boston-bred, Harvard Professor could simultaneously be a person with such modesty and so much kindheartedness in his personal dealings with others. Philadelphia, the 'city of brotherly love', must have imprinted these features into him at a very early age.

On the other hand, a Boston-Cambridge environment was not without effect on John Edsall. Although he had been all over Europe and had climbed the Alps several times even as a young man, he did not cross the Alleghenny Mountains and arrive as far west as Chicago until he was essentially 40 years old. Like most traditional Bostonians, he thought the Mississippi River bordered the Pacific Ocean.

Many individuals are surprised to learn that Dr Edsall had an M.D. degree rather than a Ph.D. Had you seen him you would probably have said 'he doesn't look like a doctor'. In fact, people have said this of him practically all his life—even when he was a practicing physician. After receiving his M.D., he was for a period in the District Obstetrical Service in the slums of Boston. On one occasion after he had successfully delivered a child at the house, the father took him into the kitchen to share a glass of wine to celebrate the occasion. Then he started the conversation by saying to young Edsall:

Father: Say, is your father a doctor?

Edsall: (In his usual deep, carefully phrased, reluctant manner) 'Well, yes, he is'.

Father: I knew it. That's what I thought when you came in. I said to myself, 'He sure don't look like much, but I'll bet his father is a doctor'.

As his biographical sketch also indicates, he was a devoted teacher, and was rewarded with a succession of students who developed into famous scientists. Occasionally his teaching methods were a little unsettling, albeit effective. He would startle some of his best students. For example, one of them told me that he would often come to see Professor Edsall to describe a brilliant new idea that he had just thought of and in a very excited way

would describe it in a sentence or two; Edsall would nod and say, 'Yes'. Then, the young man would go on and develop the idea a bit further, and Edsall would nod again and say 'Yes'. Finally, the young man in great excitement would bring it all together into a grand climax and ask Dr Edsall, 'Do you think it will work?' And Edsall would usually say 'No'.

As his biographical sketch also mentions, John Edsall devoted a substantial portion of his life, in fact a period of 10 years, to the editorship of The Journal of Biological Chemistry. These years cover the period of the transition from a stodgy classical journal to a modern exciting one, reflecting the rise of molecular biological approaches. Edsall changed the nature, character, and flavor of this journal. Again, I see no point expanding on that aspect, since you can examine the transformation by paging through the issues during that period. What I thought you might be interested in, however, are some statistics that I have been able to unearth with regard to the 10-year period of his stewardship. During the interval, The Journal of Biological Chemistry received 10 212 manuscripts; of these 3080 were rejected. The interesting thing to me has always been that every declination was accompanied by a long letter, not necessarily always written by Edsall, but certainly always reviewed and signed by John Edsall. In fact, I have seen my share of these and I always refer to them not as 'Dear John letters', 2 but 'Cordially John letters'. I know of no other man who so tactfully admonished 3080 people and never created a single enemy. I have never encountered an American biochemist who holds even the slightest animus toward Edsall, no matter how many of one's manuscripts were rejected by JBC. That doesn't mean that there never was a vigorous response to the Editor's decision. During the early years of Edsall's editorship, the Journal office was located in the Biological Laboratories of Harvard University, where the address was 10 Divinity Avenue in Cambridge. I am told by an absolutely reliable

<sup>&</sup>lt;sup>2</sup> This expression arose in American colloquial speech during World War II and referred to the disappointment experienced by a soldier at the front when he received a 'Dear John' letter from a fiancé informing him that she had married a different man.

source that one disappointed author drafted a detailed rebuttal and addressed it to the Editor as follows: 'To the Great White Father on Divinity Avenue'.

In his address in 1972 he discussed his role in fighting the American government in the supersonic transport program. This was not the first time that he challenged the American government; in fact, he had a long history of being a troublemaker. In connection with my preparation for this program, I have examined some of his Letters to the Editor over the last 20 years, and there are several occasions when he made strenuous efforts to upset the policies of the democratically elected American government. This is another aspect of his character that always puzzled me: how did it happen that such a kindly and dignified man should simultaneously have been such an agitator and subversive. If I may use the modern colloquialism, 'I have now researched this subject', and I believe I have the answer: poor genes. In fact, I am now convinced that William Shockley is absolutely right in emphasizing the threat of dysgenics. The Edsalls are obviously a prime example of this point. The first one to come to this country was Samuel Edsall. I have not been able to find out yet what he did in England that forced him to leave. However, no sooner had he come here, than he became involved in serious difficulties with the government. He was in fact, charged with treason, and some of his cohorts indeed were hanged. Samuel Edsall somehow managed to escape with his neck, but nevertheless, had his property confiscated.

As a matter of fact, John Edsall himself was also arrested, although very few people know this. I am not even sure that Mrs. Edsall was aware of this, since it happened before they were married. He was arrested by the French police, for taking pictures. Now what kind of pictures do you suppose you have to take to get arrested by French police? Your guess is as good as mine.

So there are many facts of John Edsall's personality and character that were rarely seen. And they only add to our admiration of the man. He was probably the most highly respected biochemist in this country, for his scientific achievements combined with his personal integrity and his unfailing humaneness in his relationships with all individuals around him.

It is for this reason that we cherish his memory.