



## An autobiography

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### ABSTRACT

This article is the autobiography of Ronald A. Bergman, PhD, Emeritus Professor of Anatomy at the University of Iowa College of Medicine and Honorary Editor, International Journal of Anatomical Variations.

It is our great pleasure to have this milestone autobiography in our journal, IJAV. After the announcement of the IJAV in June 2008, we received an e-mail from Dr. Bergman on February 2009. He was so kind and humble, congratulating us and wishing success on launching a journal for human anatomical variation: “*Perhaps we will, one day, get over the myth of a single anatomical prototype and that any variation is anomalous or abnormal.*” It was very surprising for us to receive a message from the person who was our guiding light for starting such a journal. Very soon, Dr. Bergman kindly accepted to be the “Honorary Editor of International Journal of Anatomical Variations” and encouraged us with this great honor. He also promised to write an autobiography for us. And finally, this is the great day! Please enjoy the autobiography by Dr. Bergman.

Ronald A. Bergman was born on June 21, 1927 in Chicago. He worked for over 40 years on human anatomical variation. His studies occupy an indispensable place within the references of any well-written article on human anatomical variation. © IJAV. 2011; 4: 98–100.

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I will begin with a true story. I was in the physician’s lounge of a large hospital in Minnesota a few years ago. My friend, a hand surgeon, was operating at the time. Presently, another physician entered the lounge, and enquired about my status. I said I was a visitor, waiting for a friend who was operating at the moment. He asked what I did and I answered that I was an Anatomist. He responded and then said that he was going to surgically repair a brachial plexus this morning and said that he wanted to be sure he wouldn’t make any mistakes so he brought with him an anatomy book in order to have a diagram of the plexus. All I could think of was that I was blessed because I was not his patient. I had just completed a review of the brachial plexus and found over 100 variations. There was a good chance he would encounter one of these, and not the one found in his textbook.

I attended grammar and high schools in Chicago. In this period of my life the most positive influence I had was at the “Neighborhood Boys Club,” where I was taught some of life’s principles; truth, trust, teamwork, and sharing. For two years I attended Wright Junior College, and finished at The University of Illinois. My major was Biology and completed work for the Baccalaureate in 1950. There was no work for BS degrees, so I continued for the Master of Science (1953), still no jobs available, I received the Doctor of Philosophy degree (1955) with a major in Comparative Physiology (Marine

Biology) and minor in Analytical Chemistry – and I married Phyllis Stephenson, a fellow student. Still no jobs available! But then it was suggested that I apply for a Polio “March of Dimes” Post Doctorial Fellowship. I was very grateful to receive a prized Polio Foundation Fellowship and went to Stockholm to study with famed Doctors Fritiof Sjöstrand and Johannes Rhodin at the Karolinska Anatomiska Institutet. When my fellowship ended we reluctantly left Sweden but I was very fortunate to be offered a position by famed Doctor David Bodian in the Poliomyelitis Laboratory in the School of Hygiene at The Johns Hopkins Medical Center. When Dr. Bodian was appointed Professor of Anatomy in the School of Medicine he offered me a position. It was a very, very difficult departure from the study of Marine Biology. I worked hard at learning anatomy, do research (no research, no promotion), and other chores required of the academe.

At Hopkins a group of very distinguished anatomists (members of the National Academy) often met for coffee, I was invited to join and when I told them I was a Marine biologist, an “Anatomist by Title only”, one of them said, “An Anatomist is what an Anatomist does.” I was accepted but I knew that my knowledge of the subject I was to teach was pitiful. Humiliation and frustration followed frequently. However, everyone actively involved in dissection learns that the textbooks and the findings at the cadaver often differ.

My colleagues disregarded these as a nuisance but being a neophyte and an “Anatomist by Title” only, I was troubled by these important anatomical variations. Their relationship to medicine was obvious and I began exploratory reviews in the *Journal of Anatomy*. To my amazement I found many, many references of variations that had failed to reach, or purposely not added, by common conceit, into textbooks. These are anatomical facts, after all and clinically relevant besides. I believe today’s textbooks are merely paraphrases of older textbooks, but not excluding their numerous mistakes. One excellent book published in English is by Berry Anson and colleagues and there are foreign language books, I am unaware of, perhaps Latarjet’s/Testut’s book in French is also very highly qualified, as the ones that consider variations useful for students to be made aware of. It is as though most authors and teachers subscribe, either knowing or not knowing, to the “dogma of Galen” that there is “a canon for the anatomy of man.” Teachers must believe that what they teach students is true because it is found in textbooks and is therefore it is the only anatomy to be learned. Many anatomists, so-called, never get beyond this shameful level.

I continued my search by reading and culling variations from every English language journal – from their inception. From there I ventured into the foreign language medical journals, gingerly, in the same manner and enjoyed every moment spent struggling with a relatively unknown, by me, language. When counted, a total of 884 journals were perused to find variations, each page from their inception. It took me 35+ years to accomplish the task. I was so taken with the information I was gathering that very often the librarian would ask me to leave the Library (at 2:00 in the morning).

With the help of an extraordinary medical librarian (Richard Imus) who retrieved articles for me, in very exotic and ancient (15th and 16th century) journals that were found only in special libraries. In addition, the use of interlibrary loans from Minnesota, the National Library of Medicine in Washington, D.C., and the Library of the Mayo Clinic were especially helpful. I found Richard’s investigative skill astounding! A listing of all journals reviewed can be found on the Internet online in *Anatomy Atlases, Illustrated Encyclopedia of Human Anatomic Variation, Opus 2, Cardiovascular System*. It is interesting to note that early journals were printed on fine rag stock paper, and they have stood the ravages of time, and the text and illustrations are still in excellent condition. In the 19th century however, paper was produced by a new and cheaper method. It was not acid free and this resulted in a paper that yellows, a prelude to disintegration and becoming dust and of course, text and illustrations are lost. This is not all bad because it opens a door to the nature of variations. As a result, I am not really surprised that succeeding investigators continue to “rediscover” what was lost. This clearly proves to me the very important concept that variations must be included with other parts that occur repetitively and found in human anatomy. It is important to remember that the total number

of anatomical variations is finite in number (this number reflects the fact that a functional body may only be assembled when the right parts including viable variations, are used in that construction – as in the assembly of an automobile.) Variations are not mistakes, they are not “exceptions” to the so-called normal anatomy but rather they should be recognized as parts of normal anatomy. This explains why they are found repeatedly, in every nation and their people, for as long as we have had printed records to examine.

In as much as variations are repetitively and continually found in viable humans (and in other animals and plants as well) this negates any concept of a “typical human” used by authors and textbook writers and teachers who tell their students this fiction or, at the best, very deficient information.

Articles of interest were often poorly or inaccurately referenced requiring a great deal of effort by me to set them in proper form. All authors should remember to be sure that their references are complete and in proper form because they are very important for those doing library searches, years from now (25, 50, 100, 200 years or more). My searches found many articles of great interest in “journals” from the 17th century. Thus, the articles we write become a part of the permanent anatomical literature. We all should keep in mind a few lines of a poem that follows: “The moving finger writes; and, having writ moves on: nor all thy Piety nor wit shall lure it back to cancel half a line, nor all thy tears wash out a word of it.” (From Edward FitzGerald’s translation of the poem “Rubâiyât of Omar Khayyâm,” in 1859).

My chairman and colleagues did not appreciate my activity and all considered it time wasted. I offer to all the statistics for 2010 (earlier years are available): our web site had 4,192,917 pages read (page hits), from 1,119,934 visitors (users) representing 602 gigabytes of data transferred. Time wasted, I think not!

Two other colleagues must be acknowledged as essential partners of this huge endeavor!

Adel K. Afifi, MD, MS. was an active participant. He is a long-time and greatly valued friend, advisor, and councilor. He was my former boss, as Chairman of Anatomy, in The American University of Beirut, Beirut, Lebanon. Adel is an outstanding physician, excellent neurologist and superb human being.

The second colleague is a radiologist, and through his gracious kindness and friendship he makes our efforts available to everyone. Michael D’Alessandro, MD, is a good friend who generously pays the bills keeping available data on the Internet for every one use, and providing me with statistics (as above), he corrects the errors, and reads and replies to comments from users of the anatomy web site.

I left the faculty of The Johns Hopkins Medical School, to join Dr. Afifi in Beirut. For me (but very sadly it was devastating for my family), it was the best of times and the very worst. The civil war experience of piecing together the bodies torn apart following a airplane crash; receiving

the bodies of the assassinated American Ambassador, his aide, and driver; storing the dead bodies from the civil war as I had the only body storage facility available in all of Lebanon; the bodies were brought to me from every political party, from all sides involving much of my time during that unbelievable and very tragic war. It was a bit “dicey” when the fighters came to claim their body or bodies, all armed with Kalashnikov guns. My son was hit by mortar shell fragments, and survived because of the expertise of the surgeons of the American University of Beirut Hospital; these things greatly expanded my view of life and of the horror that frequently occurs everywhere in the world. “When will they (WE) ever learn?” (from Pete Seeger). No one seems to understand that killing and maiming our young people is barbaric, and is surely not the way to solve problems. It is a sickness in many aggressive leaders. A song written by Pete Seeger, “Where Have All the Flowers Gone”, continually reminds me of the mindless, disabling horror of war. During my “recreational time”, because serious research was not possible, I extracted Royal Purple dye from murex snails, in the manner of ancient times and built a little furniture. There are many more stories that could be told but these I have given are enough to provide you of some idea of the terror felt by my family because of the magnitude and aggressive nature of the civil war. With the problems cited above, we also had to teach anatomy to freshmen medical students. I promised two contracts (6 years) to the American University, and when these ended I moved to the University of Iowa in the Department of Anatomy chaired by Terence Heaton Williams, MD, DSc, who encouraged me to keep on with my work. I continued my studies of anatomical variations at the superb Harden Medical Library at the University of Iowa. I completed the perusal of the 884 journals in the University of Iowa and the University of Illinois medical libraries. It should be obvious now that the word “variation” may be a distinction for “less common body parts” and not some obscure distinction such as anomalous, or as Vesalius said, “unnatural.”

I retired in 1997 from The University of Iowa and moved to Chicago, where I live today with my wife.

I thoroughly enjoyed my research, teaching, colleagues, and most of all I cherish my wife, my four sons, and my former students, who have greatly enriched my life!

#### Addendum

I was offered the title “Honorary Editor” of this journal by the Editor, Selcuk Tunali, MD, PhD. For this honor I am very grateful to be so named. Variations are important parts of normal human anatomical structure. Their relationship in solving or understanding clinical problems is obvious and is an essential part of our investigation. This journal has a very important role to play by bringing to anatomists and clinicians recognition and reminders of variations such as will be found in this journal, by and for investigators and clinicians alike.

Again, I am truly honored and I am very proud to be a part of this grand enterprise!



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