

Sapere Aude — Dare to be Wise
10 Herbert H. Severson

CHILDHOOD

Full Name: Herbert Henry Severson (aka Herb)

Tell me about where you were born and how you grew up.

I was born in Madison, Wisconsin. My father was a farmer, and the first 10 years of my life were spent living on a dairy farm. Our farm had 40 cows that we milked twice a day, at 5 AM and 5 PM; my daily jobs entailed feeding the animals, helping with milking and collecting eggs. I was the older of two children – I had a sister who was two years younger than me and my earliest memories of living on the farm are positive.

We had a dairy farm that primarily grew crops to feed our animals; we also grew tobacco as a cash crop. The tobacco that we grew was used for making chewing tobacco and it is ironic that a focus of my research would be on helping chewers and dippers quit using oral tobacco. Working in the tobacco fields and helping with harvest gave me unique insights into the importance of tobacco for farmers. Although neither of my parents smoked or used tobacco, the government price support of this crop made it a reliable source of income.

My life was significantly changed at age 10 when my parents divorced, and my mother moved to suburban Madison. After the divorce, I split my time between the farm and the city, attending school in suburban Madison during the weekdays and living on the farm on weekends during the school year, and then reversing this plan during the summer with most of my time on the farm. This was a challenging time for me and the divorce had a significant impact on my development. Social relationships with fellow students were difficult because nearly all my weekends and most of the summer was spent on the farm

away from classmates. Additionally, I really didn't know kids around the farm and felt socially isolated. My mother remarried and my younger sister joined our family when I was a senior in high school.

What did your parents do for a living?

My dad was a dairy farmer who raised crops, hogs, and chickens on our 160-acre farm and milked cows twice a day. After my parents divorced, he also ran a couple of bowling alleys and later owned a local bar, in addition to running the farm. In later years, he sold the cows and other animals and focused on running the bowling alleys and bar. My father was a high school graduate and attended the University of Wisconsin for one year to complete a short course in agriculture. He also worked for a couple of years on an experimental farm run by the university before he purchased his own farm. My mother was a housewife until the divorce, then she was a waitress and hostess at local restaurants. She also later bought a tavern and ran this for several years. Both of my parents were full-blooded Norwegian by heritage. Norwegian was spoken in the home between grandparents and relatives, but my sister and I never learned the language. However, our cultural heritage was important, and we always celebrated Syttende Mai (17th of May) or Grunnlovsdag, this is the celebration of Norway's independence from Denmark. My dad and I were members of the Sons of Norway; I still wear the Norwegian flag lapel to show my heritage.

What kind of educational environment did you grow up in?

When I lived on our farm full time, I attended a one room schoolhouse which was located on the edge of our property and there were 18 total students in school. My grade was the largest class with three girls and myself. After the divorce I attended public schools in Monona Grove, Wisconsin which is suburb of Madison.

Attending suburban schools was beneficial because there was more support for education and I was surrounded by students who had high academic aspirations. My mother left high school in her junior year to give birth to me, but she valued education and encouraged me to go to college and use education to have a better life. My father valued education and wanted me to do well in school but did not push me to go to college. I was the only sibling to attend college and the only member of my family to get a college degree.

What were your interests in high school?

I loved math and science in school and enjoyed reading lots of biographies about famous people and books on history. I found school easy but seldom applied myself except to keep good enough grades to stay on the sports teams. My main focus was on running for track and cross-country teams and not on academics. I was a pretty good runner, reflected by being captain of the cross-country team and winning my 400-meter races. I really did not excel in academic courses until my sophomore year of college.

EDUCATION

Tell me about your experiences getting your undergraduate degree.

My high school counselor told me that I was not college material but fortunately this did not deter me from pursuing a college degree. My family lacked money to pay for college, but I was fortunate to receive a track scholarship to the Midland Lutheran College in Fremont, Nebraska. Whereas the experience in my first year of college was positive in many ways, I did not feel that a small Christian college with fewer students than my high school was a good fit. I also realized the limitations of my talents as a college runner when competing in the 800-meter races against faster and more talented athletes.

After my first year of college, I transferred to Whitewater State College, which was close to Madison and fit my interests much better. During this time, I became more interested in academic pursuits and was excited about classes in psychology. I graduated in 1966 with a BS degree in Psychology and completed my teacher certification program by being a social studies teacher in a local high school.

What inspired you to get your Master's degree and PhD?

One professor had a significant impact on my decisions to pursue a profession in psychology. During my undergraduate program I took a class in Special Education in which we learned about exceptional children as well as children with disabilities. This professor encouraged me to pursue a degree in school psychology, which combined my interest in psychology and special education. After I graduated, I was accepted to the School Psychology doctoral program at the University of Wisconsin-Madison.

Were there professors, mentors or advisors that made an impression on you during this time?

Graduate school was an exciting time for me, as I was surrounded by bright, articulate students from around the world. In fact, I was the only student from the state of Wisconsin in my graduate class. I had the opportunity to become a research assistant at the cognitive learning center, where I was part of a team that carried out research under the direction of Dr. Frank Farley, who later became the president of the American Psychological Association (APA). I was able to co-author papers that came out of this research that resulted in my earliest professional publications. I was also a teaching assistant at the psychoeducational laboratory and supervised cognitive, emotional and behavioral assessment classes. My advisor was a good mentor for my research program

and I also had other wonderful professors who were inspiring, encouraging and supportive. It was during this time that I made the decision to emulate them and pursue a career in academic psychology.

Tell me about your doctorate work.

This period at the University of Wisconsin-Madison was a dynamic time as I was fully engaged in the academic program, but it was a volatile time in politics and social change. I started my graduate program in 1966 and the Vietnam War became a rallying cry for political activism. During this time, the teaching assistants went on strike; because they were affiliated with the AFL-CIO Teamsters, they were able to successfully negotiate the first contract with teaching assistants in the United States. This experience, combined with protesting in the streets against the Vietnam War and working on political campaigns, had a significant impact on me and resulted in my continued political activism. My graduate work for my doctorate in Educational Psychology was a mix of doing research at a Research Assistant and doing teaching as a Teaching Assistant in addition to my full academic load. I loved the challenges and felt so fortunate that the program at Wisconsin was preparing me for both clinical practice and conducting independent research.

One unique opportunity offered in my program of study meant that I could get certified as a school psychologist after my master's degree, and I subsequently took a part-time job in the Madison public schools. I was assigned an elementary, a middle, and a high school which allowed me to practice my assessment and intervention skills with students of different ages while completing my doctoral degree. I worked with a lot of wonderful and talented teachers, including Bonnie McQueen who later became my life partner. This was a great experience and confirmed that I wanted to work with children

and families and to promote educational success.

What factors contributed to your pursuing an academic career and becoming a researcher?

I developed a close relationship with some professors during my doctoral program and they impressed me with their commitment to conducting research as well as their enjoyment of being a professor. I think that this close relationship and ongoing research work with my professors encouraged my thinking that becoming a professor of psychology and conducting research was a career for me.

Were there professors, mentors, advisors that made an impression on you during this time?

There were several professors who were both supportive and provided mentoring for me. In addition to my major professor, A.J.H. Gaite was most instrumental in developing my research program and supporting my thoughts of becoming a professor. Dr. Giebink provided a lot of support for learning behavioral interventions and we had wonderful discussions of how this could impact the lives of children and families.

What lessons would you say you learned from them that have influenced your educational and professional development?

Two lessons stick with my memory of this time. One was that research needs to be theory driven or derived. And second, research needs to have practical implications for improving health, and welfare for the target audience.

Tell me about the relationship you had with your major advisor.

My relationship with my major advisor was formal in my academic work and advising but friendly and informal when away from the university. Students would play hockey with him on the weekend at a rink he had created on

Lake Monona where his house was located. Nothing felt better than playing hard, cross-checking against your professor and then sharing a beer with him afterward. Later, when I was a professor, I felt comfortable in having more informal relationships with my students in off-campus settings.

Tell me what you studied as a student and what led you down this path.

I focused on behavioral interventions with children and families and the path of behavioral change strategies and clear behavioral outcomes became the hallmark of my research. Although my early work focused on behavior change in young students in school settings, my later work focused on other behavior changes that directly impacted health outcomes. My early work was more individual focused, and later work expanded to broader outcomes for public health benefit.

PROFESSIONAL LIFE

Let's move beyond your education and talk about your career.

I have been fortunate in my career to find new opportunities that have led to significant changes in both direction and content. After receiving my PhD, I pursued an academic career as a college professor in School Psychology. When I became an Assistant Professor of Psychology at the University of Northern Colorado in 1972, I assumed that this was going to be my path. I really enjoyed teaching undergraduate and graduate courses and the opportunity to teach a wide variety of subject areas. However, the heavy teaching load with new preps every term and a large advising load resulted in very limited time for research. There was no support for research except through student thesis and dissertations. It was fortuitous when a student came to me with a plan for doing his master's research study on smoking cessation, using an aversive conditioning approach that involved "rapid smoking." This procedure involves having the

adult smoker inhale a puff on a cigarette every six seconds, which is much faster than a normal smoking pattern. Smoking at this pace results in smoking becoming aversive, because the smoker frequently becomes nauseous and dizzy, and sometimes gets sick from smoking at this rapid rate. My first subject threw up after two cigarettes but fortunately the waste basket was nearby. I was also getting sick from the heavy smoke exposure because the small rooms in which we conducted the studies had poor ventilation. The students and I published the positive outcomes of this study and we entered an area of intense debate in the literature on the safety and efficacy of aversive conditioning for smoking cessation. Publishing a controversial article was a good thing for my career because our studies received a lot of interest and reactions, which subsequently led to working with Dr. Ed Lichtenstein, at the University of Oregon, who had developed the Rapid Smoking cessation method. Little did I realize at the time, but I was on my way to making tobacco cessation an important part of my research career. A lesson for me was to be willing to pursue new research ideas even if they are controversial, as this can be rewarding.

After three years at UNC, I was fortunate to secure a position as the director of School Psychology at the University of Oregon, in Eugene. This was a great move, as we have loved living in Oregon and have stayed here for the past 50 years. The teaching load at Oregon was heavy and I was the only full-time professor of School Psychology, so I was advising all of the students and supervising their research. In 1979, I had the opportunity to collaborate with Drs. Anthony Biglan and Ed Lichtenstein on a grant proposal to the National Cancer Institute on smoking prevention. The National Cancer Institute was soliciting proposals to develop and evaluate smoking prevention programs for elementary and middle school students, so we developed a proposal that was submitted through the Oregon Research Institute (ORI). Submitting through ORI was based on recommendations

of my dean, Dr. Wes Becker, who was on the Board of Directors of ORI. Being at an independent nonprofit research organization offered several advantages over conducting research within a university. First, scientists had much more control over the indirect expenses and could use these funds for pilot studies and support for writing new proposals; also, salaries were significantly higher. It was a fortunate decision that would have a major impact on my research life and career. I learned not to be afraid of taking risks and to look for opportunities even if they did not fit my current career path.

After a few years of being both a professor at the University of Oregon and a research scientist at ORI, I left the security of the university to pursue a career as a full-time research scientist. It is such a different life to work full time in research; it is both exciting and fulfilling. I have been funded full time as a research scientist on research grants for 47 years. I have primarily been funded by the National Institutes of Health (NIH) and also have received funding from foundations, pharmaceutical companies, the National Science Foundation (NSF), and the Department of Defense. The best mentors for me have been the senior research scientists with whom I collaborated. Ed Lichtenstein provided the mentorship in tobacco research and improved my writing. Tony Biglan was a master in generating new ideas for research studies and challenged my theories of learning. Hill Walker was an amazing model for conducting research in special education and creating new models for assessment and interventions for children experiencing emotional disorders.

In the early 1980's, I also collaborated with Dr. Hill Walker, a professor of Special Education at the University of Oregon to develop screening, assessment, and interventions for children experiencing social and emotional disorders. This collaboration allowed me to pursue interests in assessments designed to support early intervention. Throughout the course of my career, I have

been fortunate to collaborate with other innovative researchers working in a variety of critical research areas. These collaborations contributed both to my development as a research scientist, and to my ability to obtain continuous funding to support my research interests.

Another key to my career has been to recognize opportunities and know when to pursue them. When funding at NIH became more challenging, I pursued funding through the Small Business Innovative Research (SBIR) mechanism within NIH. Because SBIR grants can only be dispersed to for-profit companies, I started my own company, Deschutes Research Inc., then submitted and ran these grants through this company. Researchers submitting proposals through this company provided me opportunities to collaborate on diverse projects. Because the goal of SBIR grants is to develop programs or products that are sold commercially, we needed an outlet for distributing and marketing the products that were created with the SBIR grants. For that purpose, I created a publishing company, Applied Behavior Science Press, which allowed me the opportunity to learn marketing and distribution skills and allowed scientists to quickly move products produced by the grants to the marketplace.

One unique opportunity was my collaboration with Dr. C. Tracy Orleans at the Robert Wood Johnson Foundation on smokeless tobacco cessation among professional baseball players. For several years, I was a member of a team that would go to spring training and meet with professional baseball players to encourage them to give up their use of chewing tobacco and snuff. Joe Garagiola and other retired players, some of whom had oral cancer caused by their use of chew, would present in the clubhouse to encourage quitting snuff or chew, and we would provide personal counseling to players who wanted to quit. We later traveled with a dental team that would conduct oral exams on the players to show them the lesions in their mouth caused by their use of chew. This access

to the players in both major and minor leagues was facilitated by the Athletic Trainers organization that supported this intervention. In addition to the intervention, I was able to conduct research on prevalence of using dip by players and publish this annual report to demonstrate the value of our intervention.

What has been your proudest research or other professional accomplishment to date?

I am not sure that I can point out one specific accomplishment that stands out from others. I was a contributing author on four Surgeon General Reports (1986, 1994, 1007, and 2012) and an invited member of the Institute of Medicine, Committee on Preventing Nicotine Dependency in Children and Youth. Our final report Growing Up Tobacco Free was a cornerstone for the science on tobacco prevention. I am proud of creating efficacious interventions for tobacco cessation and my particular focus on smokeless tobacco has been a unique aspect of my work. I have developed numerous interventions for cessation, including video and written materials, as well as Web-based and interactive media programs and mobile apps. My booklet entitled *Enough Snuff: A Guide for Quitting Smokeless Tobacco*, has been distributed widely and used in both research and clinical settings. I am proud of my work on developing a multiple gating assessment for behavior disorders in collaboration with Hill Walker. This Systematic Screening for Behavior Disorders (SSBD) has been used in numerous schools. I enjoy creating assessment measures and the Severson Scale for Smokeless Tobacco Dependence (SSSTD) is used in multiple research studies. Also, I really enjoyed my work with professional baseball on helping players quit their habitual use of chew and snuff and found it gratifying to work with players individually on quitting this addiction. It also makes me proud to know that many of my students and research assistants went on to become independent and successful researchers or professors. I always point out

that it is a collaborative effort to carry out any large research project and mentoring is an integral role for any researcher. Of course, receiving the Research Laureate Award from the American Academy of Health Behavior was also a highlight of my career and allowed me to reflect on my career.

Have there been any projects or studies you thought would lead to something interesting that just did not pan out?

I have written more than two hundred grant proposals and about 80 of them were funded, which clearly shows that many of my ideas or plans for moving the science forward were not seen as viable by my peers on the review committees. One idea that we were excited about involved assessing the impact of the built environment on vaping among adolescents. We developed a coding system for tobacco and marijuana marketing and outlet locations and anticipated using crowd sourcing to provide neighborhood data on the built environment. We had planned to track adolescents' movement in their environment via cell phones and relate their exposure to the tobacco and marijuana environment cues, such as billboards or ads on stores, to evaluate how this exposure might impact their attitudes, acceptance and use of vaping products. After a couple of submissions, we gave up on that idea. It was exciting for me to learn about GPS tracking of adolescents in their environment and how to relate their exposure to environmental cues to changes in attitudes and behavior, but we never had a chance to do this study. My efforts to get funded for vaping cessation and marijuana cessation have not borne fruit so far.

Tell me about your philosophy that guides your research chain of inquiry and other academic pursuits.

I find that setting up sessions with other research staff and going over different ideas has worked well for me. I sometimes will be

reading an article and get an idea for a study that we think would answer some important questions, so I keep an idea file with lists of ideas I have for new studies or offshoots of current projects. The group sessions with research assistants and other scientists need some structure, so I provide a list of ideas that I have been working on before the meeting and ask the group to critique and generate with other ideas for new studies. This interactive process has been productive. I also find that calling or emailing a colleague to get feedback is useful. My guiding philosophy has been to be collaborative and open, which promotes the idea of developing a team effort. Often ideas that are exciting initially will reveal themselves as not viable when we review the literature and think more completely about what the studies would entail. When I am trying to move into a new area of research, I like to get feedback and ideas from others since they bring different perspectives and skill sets to bear on the plan. I also find that questions or interactions during a presentation at a conference can promote new opportunities for collaboration.

Inasmuch as you have been successful in disseminating your research, what advice to you have for young professional who struggle?

I strongly believe in dissemination of our research findings. Some of this motivation comes from my work on SBIR/STTR grants where we are expected to create products for commercialization. Another reason is my involvement in creating and testing assessment instruments and developing school-based interventions, both of which require us to go out and “sell” the program or intervention to the public. I like this opportunity to present the research or program to the public, as this forces me to promote the idea that this program has direct benefits to schools, children, families, or society. One must be careful and not appear to be promoting these things just for personal gain, but I strongly believe that our science

needs to be applied to solve problems that we face in our society and that we have not done a good job of helping the public understand the benefits of our work. The failure to support science is often the fault of the scientists who do not take the time or make the effort to help people understand the value of what we are doing. Before conducting media interviews or meeting with the public, carefully craft the key points that you want to make and work on ways to get this message across in your presentations. Regardless of the questions in the interview, make sure that you point out the key points and benefits of your work.

What single piece of advice would you pass along to a new investigator or researcher-in-training today?

Find collaborators to work together on projects and find ways to work with others even if that means volunteering to collect data or help with data analysis. In the current environment it is critical that you have colleagues and collaborators to work with on projects. Volunteer to help others and solicit help from mentors, colleagues, and friends when you are stuck or need some input. Find ways to help others with their publications to get your research record started. Learn data analysis as every project needs more help in analyzing data and you can be helpful to other projects. Do not be afraid of rejection whether from journal editors or grant proposal reviewers. This is a hard lesson as rejection hurts and it feels very personal. I vividly remember the pain that I felt when I received a rejection from a journal for an article that I had submitted based on my doctoral dissertation. My first reaction was to put the rejection letter in a drawer in my desk and forget about it. I took a while before I realized that this was not an adaptive response, and I needed to get some perspective and change my mind set about this rejection. Whereas none of us likes having an article or grant proposal rejected, stay calm, consider the feedback from the review, and evaluate how to change the manuscript or

improve the application. I also find that sharing the reviews with other scientists and soliciting their input is critical before revising or deciding not to pursue an idea further.

When your professional career ends, how would you like to be remembered?

This is a challenging question. I think that it would be good to be remembered as someone who made contributions to health promotion by doing impactful research in tobacco prevention and treatment of nicotine addiction. I hope that I have been a good mentor to other researchers and made a meaningful contribution to their success as research scientists. I really enjoyed teaching and supervising students in clinical settings, and hope that they learned to be good clinicians to help others. I have always tried to see the humor in life situations and hope that I am remembered for my humor and humanity in caring for others.

Professionals in any field have been known to say there is a price for success. To what extent has that been your experience in your professional career?

There have been some costs of success. I used to work long hours and focus on my research often at the expense of time with my two daughters and my wife. I traveled extensively presenting my research work and was often gone when significant events were happening with the family. I think that I focused too much on pursuing publications and research funding, and my work-life balance was costly on my personal life. I came to realize this when I was more secure in my professional career and then was able to make sure that I was more present in the lives of our children and more able to take time away from work. It is hard to achieve this balance early in your career because you focus so much of your time on writing grant proposals and publishing your work in journals to create a successful path to becoming a research scientist. Working full time in

research at a non-profit organization, independent of a university and without teaching or administrative responsibilities, gave me more freedom to focus on my research grants and publications – but I did miss the interactions with students.

LIFE OUTSIDE ACADEMIA

Have you some leisure time activities for which you have a passion?

I have many interests and activities that I enjoy. I am passionate about wine making and golf but also greatly enjoy traveling to other countries and learning about their cultures and societies. I have been making wine since the mid-1970's as a home wine maker and I helped create a wine co-op that taught people to make wine. Some members of this co-op decided to create a commercial winery and for several years I was co-owner of the Camp Creek Cellar winery. It was fun to make great wines and market them but also a lot of work, so we closed the winery after a few years. I continue to collect wines and do wine tasting events and only make a small amount of home wines. I was late to the game of golf, but the mental and physical challenges have been a wonderful pursuit, and I love the game. I am also a foodie, so I love to host dinner parties and share new dishes.

If you could spend an evening with anyone living or dead, contemporary character, or historical figure, who would it be, and what would you talk about?

I would love to spend an evening talking to Barack Obama. He was the 44th president of the United States and recipient of the Nobel Peace Prize. His brilliant oratory and unique perspective make him a transformative figure in American history. I would like to get his perspectives on our current political and social environment in the USA and would solicit his ideas on possible solutions to diffuse the current political discord and rhetoric that is so

divisive. I enjoyed reading his books, *Dreams of My Father*, *The Audacity of Hope*, and *The Promised Land*, and I would hope that he might provide some ideas on how we can get Americans to work together to promote a democratic society that offers opportunity to all people.

What would you be doing if you had not worked in academia?

I would probably be in business or marketing. I have always had an interest in running a business and doing marketing, and that is reflected in my having several businesses in the past, including a winery, a research company focused on SBIR grants, a publishing company and even a coffee house and waterbed company while in college. I like the opportunity to create a company and focus on selling products, especially on selling products that I have helped create.

What three books outside of academia would you recommend for others to read and why?

The first book would be *Thinking Fast and Slow* by Daniel Kahneman. This is a masterpiece and one of the most engaging collections of insights into the human mind that I have ever read. Dr. Kahneman is a winner of the Nobel Prize in Economics and was once a research scientist at the Oregon Research Institute. Essentially, he describes a long line of research in human decision-making and he has a gift for distilling 50 years of research into a readable, consumable description of human behavior. He clearly demonstrates, through extensive experimental studies, that we are not the rational decision-makers that we like to think we are and more often our responses are based on emotion. This is probably the most important book to read that I could recommend. It is a fairly dense book that can require a second reading to distill many key points.

The second book, along a similar line but much easier to consume, is *Influence: The*

Psychology of Persuasion by Robert B. Cialdini. This book had a profound effect on my early research, and I used a lot of his suggestions to create some of my earliest efforts to help promote healthy interventions to change behaviors. Dr. Cialdini, who is social psychologist, conducted a series of creative studies to study how we are persuaded or enticed to buy or agree to some offers to purchase items. His personable writing style and use of humor makes for easy reading. I found this book useful in my work and I often recommend it to others. He conducted a lot of participant-observation studies to learn the methods used to get compliance with the request of others. He distilled this into six principles and described eloquently how these methods are used to influence us in our decisions to comply.

The third book that I recommend is *Being Mortal* by Atul Gawande. In this best-selling book, Gawande, a practicing surgeon, reveals the struggles of his profession and ultimate limitations and failures of dealing with end-of-life issues. As I age and face increasing physical challenges, I am drawn to books that deal honestly with humane and honest discussions on the limits of medicine and how to live with autonomy, dignity and joy to the end. This is an insightful book that is powerful and moving.

Share something about yourself that you believe is misunderstood by others.

It is always hard to look back on some things that you said or did that you now regret. In my case, it was probably that I was too critical of others and said things that were hurtful in my effort to give what I thought was honest feedback. I have learned over time to be much more careful of the feedback or critique that I have given and be more sensitive to the possible impact of what I have written or said that is critical of others. I also used to be sarcastic and learned that this is often misunderstood and can be hurtful, so I have diligently tried to avoid sarcastic remarks.

Editor's note.

Dr. Severson joined the Academy in 1999, selected Fellow in the class of 2002, and in 2006 was given the highest honor, Research Laureate of the American Academy of Health Behavior for his contributions to health behavior research.

**Elbert D. Glover and Robert J. McDermott
are the Feature Editors of *Sapere Aude*.
Editor's note.**