

The Mentoring Process in Graduate Education in Plant Pathology

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Sagacious Solomon, among others I feel sure, once quipped that there is nothing new under the sun, and so it is with the topic at hand, which, incidentally, has come into sharper focus recently in academic circles. Mentoring reaches into man's dimmest past, when possibly the first older, more experienced or erudite individual functioned in a tutorial and nurturing role for a younger protégé. Michelangelo, Carl Jung, Franz Joseph Haydn, and Margaret Mead are examples of individuals who benefited from and contributed to mentoring and networking. The term

"mentor" comes from Homer's epic *Odyssey*; therein, Ulysses chose his wise and trusted old friend Mentor to guard, protect, and teach his son Telemachus during his long absence.

To be sure, mentoring is an exceedingly vital and crucial function in graduate education in plant pathology, and ideally the relationship occurs between major professor (mentor, sponsor, patron, committee chair) and graduate student ("mentee," protégé). Some students have dropped out of the educational process because of bad mentoring experiences. Mentoring is crucial for establishing professional and career goals and for normal psychological development of adults. I must emphasize here, however, that mentoring also commonly occurs between the fledgling and the seasoned plant pathologist at some level throughout entire working careers. It is really a spin-off of our natural bent and need for loving, caring, and nurturing each other for the common good. Some among us, alas, are markedly impoverished in good mentoring qualities, while others are exemplary, with a generous spread between the two extremes. Fortunate is the student who finds the right major professor who is a good mentor, whose assistantship, travel, and operations coffers are full, and who also enjoys a fine professional reputation! Many a student has divulged to me that the primary reason for choosing a graduate research project and forming a mentor/mentee relationship was financial; this is unfortunate in today's capricious research work, which is underwritten almost solely by grant monies that are often let on the basis of public opinion, fads, and whims, and not on support much needed for long-term research projects.

A colleague of mine once related that he underscored to his beginning graduate students that they were, in principle, initiating a "marriage" and that whatever good or ill that issued from either partner in the mentoring relationship reflected on the other. And, parenting in the familial setting is a one-time-through experience (generally), while mentoring graduate students occurs throughout a working career and is a continuous learning experience; perhaps those of us who have had several students should be improving with practice! As the father of four grown children, I am acutely aware of genotypic and phenotypic differences in siblings; how much greater are the differences in the broad spectrum of graduate students!

Mentoring is a most important training and development tool for upward professional progression in plant pathology

circles. A mentor is a role model or example and should perform many functions. The mentor is not a member of the mentee's peer group but possesses prestige and power in the same social system. The mentor should encourage, challenge, and support the mentee in his/her ideas and in working and thinking through problems. The mentor should protect the mentee from unreasonable reactions of peers and superiors long enough for the mentee to try out ideas and modify them.

Several important descriptors should characterize the mentor: empathetic, supportive, objective, inspiring, dedicated, honest, ethical, moral, even-tempered, challenging, motivating. The mentee should have many of the same attributes and in addition be receptive, cooperative, open-minded, and excited to learn. The mentee should be introduced to the "plant pathology fraternity," be taught how to "learn the ropes" and be introduced into "the network." During the course of graduate education, the mentee learns many important functions: publishing and presenting papers, helping prepare and authoring grant proposals, conducting workshops, teaching courses, joining and functioning in professional organizations, attending and participating in professional conferences, and assisting the major professor in the many tasks in which a multitude of skills is learned. I believe that the teaching and mastering of communications and interpersonal relations skills are as important as any aspect of graduate education!

During the mentoring process, the mentee proceeds through four basic stages. The first is the *initiation stage*, lasting 6 months to a year. During this period, the relationship becomes established and begins to have importance for both partners, and their roles become more defined. The second or *protégé stage* lasts 2 to 5 years. During this time, the protégé's work is not recognized for its own merit but rather as a by-product of the mentor; the mentee makes key decisions and enhances feelings of power and identity and should be buffered from unduly harsh criticism. During the third or *breakup stage*, the mentee is recognized for his/her own contributions and takes a job; this shift to independence and becoming established is difficult for both individuals! The last or *lasting friendship stage* is one of redefinition. This relationship is a peerlike friendship, and many lifetime friendships have been enjoyed; some are downright legendary!

The mentor is often unknowingly a powerful role model. Mentees often mimic their mentors, such as by assuming their mannerisms, jargon, and vocabulary and by adopting their philosophies or value systems on scientific and other matters. In other words, the surrogate parenting role is extended beyond the mentee's home life.

Mentors should be well endowed with positive personal behaviors, specific knowledge, and professional status. They should facilitate the comprehensive development of mentees by providing broad guidance and professional socialization in addition to specific teaching and task accomplishment. They teach, advise, open doors, encourage, promote, cut red tape, and otherwise help the mentee. Mentors also share the unwritten traditions and pseudolaws within the institution. They help protégés get hired or promoted by providing job leads, professional contacts, personal recommendations, and decisive information that tilts the balance of opportunity in the protégés' favor.

Special types of teachers and gurus may help one realize his/her dreams. But can mentors be made to order? Some feel that those interested in finding or being a mentor should look within themselves!