

Letter to the Editor

Some Thoughts on the Current and Future Health of Phytopathology and the American Phytopathological Society

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Recently I completed a chapter on "The Evolution of Parasitic Fitness" for inclusion in Volume 4 of "Plant Disease: An Advanced Treatise", edited by Horsfall and Cowling. In part because of the nature of the subject and in larger part because of the manner in which I chose to approach the topic, the final version of the chapter was philosophical, theoretical, speculative, controversial, and critical of some currently accepted concepts and dogma. As I reflected on my labors, I often thought, "Thank heavens I'm not submitting this for publication in *Phytopathology*; it would never be accepted, because it is everything that our journal prefers not to publish." That rather somber thought prompted me to add an Epilogue to the chapter which is included verbatim herein:

VIII. EPILOGUE

"The difficulty lies, not in the new ideas, but in
escaping from the old ones"

John Maynard Keynes, 1936

My story is told for what it is worth. My sincere thanks to Editors Horsfall and Cowling for permitting me to share my thoughts with others in a manner that I preferred. The Editors should be commended for asking the authors of these essays to be speculative and challenging in the treatment of their subjects. There are pitiful few opportunities in our science to offer provocative and philosophical interpretations of matters relevant to our science. The science of plant pathology is, by and large, a conservative discipline and somewhat less than eager to venture beyond the walls of our traditional framework. Our motto too often seems to be that it is easier and safer to gather new data rather than generate new ideas. Our journals are amply stocked with scientific data, but only rarely can one find a provocative or philosophical interpretation of the data beyond the immediate scope of the vehicle that generated the data. Editorial policies discourage or reject provocative thinking. Stern editorial barriers are erected in front of new ideas or concepts that challenge existing dogma. But, succeeding generations of scientists should be obliged to assess critically the current knowledge to better guide its future scientific rationale. A conservative science, when muffled with orthodoxy, will be slow to grow in stature; it will only stagnate; and may just fade away. I suggest that those that dictate editorial policies for our many journals everywhere heed these words and be aware that they reflect the feelings of a growing number of their colleagues who grow restless. If this treatise breathes new life into our science before rigor

mortis is final or before I become a member of an endangered professional species, it will have met its obligation.

Now I am patently aware that a segment of the membership of The American Phytopathological Society agrees with me in principle, at least to this point, and that another segment of the membership will disagree with me, the level of disagreement ranging from a paternal shaking of the head in a sidewise manner to a substantially more violent reaction. Sad as it may be, there is a third segment of the membership, and perhaps the largest one of all, those who in time have come to care little about the current and future health of their journal and their society. More than likely, a substantial number of the third segment of our membership indeed may well agree with me in principle, but are reluctant to admit it or to attempt to do anything about it because they believe the chances of accomplishing anything at all are essentially, if not absolutely, nil. Or so the argument goes.

Permit me to offer my own personal assessment of the current and future health of Phytopathology and The American Phytopathological Society, for what it is worth. In my opinion, the current state of health of both is poor and the future health of both, assuming the status quo, is not promising.

Let us examine some of the "causal agents" that have contributed to what I consider to be the current state of ill-health of our journal and our society. The two will be discussed in tandem because, for the most part, one affects the other.

Most people practice several forms of preventive medicine. We keep clean, receive physical check-ups, consume antibiotics, endure countless vaccinations, etc. We practice these preventive acts to avoid the consequences that would accrue if we didn't practice them. Shouldn't professional societies and journals also practice what is tantamount to preventive medicine to assure their current and future good health. I think our journal and society should, but I don't think they do.

What preventive medicine should our society and our journal practice? It seems so impeccably logical and simple. We should acknowledge that an ultra-conservative posture is crippling and debilitating. How long did we labor, under anxiety, before we gave birth to our own society headquarters which has since proven to be a financial success? How long did we anxiously labor over the awesome decision of publishing a second journal of a more applied nature even though a majority of responding members wanted one (See the 1969 Petersen report of the Publications Subcommittee on Needs for a Society Outlet for Applied Papers)? We would still be in labor if a federal decision to scrap the *Plant Disease Reporter* hadn't given us an adopted child.

Perhaps as an indirect consequence of being a conservative discipline, a trait expressed to varying degrees by most agricultural sciences, we seem to express little concern about the future health of our profession. We seem little concerned by the historical truth that those who prefer the status quo eventually find themselves with a diminished status. The same is true of a science that survives in part on theories and concepts. We seem reluctant to allow colleagues to challenge existing concepts or to offer new ones. The editorial

policies and philosophies of Phytopathology are, in part, responsible for this unfortunate fact. How often does a new and truly significant concept appear in Phytopathology; one that may well reshape a portion of our discipline? How often does an author truly speculate about the yet-to-be proven significance of what he has observed? Scientists do not create data; they are merely observers of biological phenomena. The significance of what they observe will be dictated by their ability to interpret what they have observed. It is not a question of what it is, but rather of what it means. The potential consequences of their interpretations can only be determined at some point in time and even then only if the scientific community is privy to their thoughts. And that is where Phytopathology enters the scene.

If my conversations have introduced me to a random sample of my colleagues, countless concepts and ideas have been stifled by the Phytopathology publication process. They not only grow restless, but also grow angry. The need for a change in philosophy before it is too late is clearly evident. Perhaps what disturbs me most of all is the fact that the conservative nature of Phytopathology has strongly influenced the oncoming stream of plant pathologists who suffer and labor under the "publish or perish" syndrome that permeates every facet of their early professional careers. They labor to be promoted and tenured; they labor for something other than starvation salaries. Editorial policies force younger plant pathologists to practice a negative form of preventive medicine merely to survive. They know the name of the game: Don't speculate; don't philosophize; don't be controversial; don't be provocative; and, above all, don't be critical of the older, "elite" pathologists whose ideas and reputations must remain untouched. We cannot be critical of them for playing the game, but I am strongly critical of those of us who have forced and continue to force them to play by our rules.

It is, to say the least, most difficult to publish a new concept or a provocative paper in Phytopathology. It is even more difficult to challenge existing ideas. In my opinion, a system of review which leaves the reviewer unidentified tends to stifle the acceptance of conceptual or critical thought. The all-important key to peer review is what the system permits as an acceptable reason for rejection of a new or critical thought. At any rate, to my way of thinking, the peer review system is suspect and ill-conceived. Peer systems require, if not demand, conformity; and, conformity breeds conservatism.

Peer review was intended to be objective; it isn't, and never will be, as long as reviewers remain unidentified and as long as different subjective standards are applied to different authors or different kinds of authors. For example, even Editors agree that reviewers tend to be less critical of manuscripts prepared by graduate

students, research assistants, and technicians. They are reluctant to welcome a student into the profession with a rejection and I can't fault them for that. Certainly, we also must take into account the fact that most student articles generated from theses are safe and conservative. The main objective of thesis research is to permit the student to demonstrate to his peers (committee) that he or she is capable of conceiving and conducting independent, acceptable scientific research. Somewhat ironically, this might account, in part, for the conservatism of Phytopathology; my survey of randomly selected issues of Phytopathology during the past 2 yr suggests that approximately half of all journal articles are senior-authored by someone whose position is something less than an Assistant Professor.

On the other end of the spectrum, manuscripts promoting new concepts or challenging existing ones most certainly are not safe or conservative. More often than not, they are reviewed most critically; even Editors concede this to be the case. Why are conceptual papers viewed with such a jaundiced eye? There may be several reasons; one might have something to do with image or status. Reviewers of conceptual papers are recognized authorities in their field. They may have been involved in the development of currently accepted concepts which may be challenged or potentially replaced by the concept under review. There is a natural tendency to be more critical of a challenging paper, particularly if the challenge even remotely affects the reviewer. It is not the reviewers fault; he simply cannot be objective.

I would like to suggest a different method for reviewing conceptual, challenging and/or provocative manuscripts. I suggest that the authors of such papers select their own reviewers. A copy of the manuscript and the names of the reviewers would be deposited with the Editor-in-Chief at the same time the reviewers received the manuscript. If the reviewers approved the manuscript, their names would appear on the first page of the article in Phytopathology, identifying the fact that they had reviewed and approved the manuscript. The implication of their publicly-disclosed approval is reasonably obvious. It should not mean, however, that they necessarily agree with the author's thoughts.

This letter is written out of a genuine concern for our society and its state of health. To grow and to meet future challenges, our society must be vigorous and imaginative. We must be leaders in agriculture, not followers. New ideas and philosophies are needed as we meet today's concerns for a disease management, crop loss estimates, integrated pest management, environmental protection, and the like. There are many in the society who can conceive those ideas. Let them be heard. If they are not, I just might become a member of an endangered professional species. I'm too young to suffer such a dire fate.