

Making Progress by Maury Seldin

Making progress may mean moving towards a goal. Making progress may also mean growth or development.

In the growth or development sense, progress does not necessarily imply a conscious attempt to achieve a predetermined objective. Rather, it may imply an evolutionary process. Such a process engenders an enhancement of quality of life. Our generation, compared to an earlier generation, may live longer, be healthier, or live a life enriched in many dimensions. That is progress. Some of it came from a natural process of a strengthening of the species as an evolutionary process.

Most of it came because of advancements in the natural, physical, and social sciences. The scientific revolution that began a few centuries ago brought dramatic progress to our quality of life. Considering what technology has brought us, royalty of an earlier era could be envious of the quality of life of a substantial proportion of our contemporary society. More important than the technology, at least in my view, is the freedom brought about by the enlightenment of the same few centuries. People, today, think about things differently than did people of a few centuries ago. This thought is grounded in the scientific revolution. It has migrated from the physical sciences to the social sciences.

The enrichment of life in multiple dimensions implies a value system in which there is a variety values and degrees to which they may be achieved. More is better. Yet, there may also be a value of balance, so that the mix itself is a value. The tradeoffs may thus be for balance as well as higher rated values, i.e., those that are considered to be more important.

As social scientists we have selected specialties in which we seek to make contributions to the body of knowledge. The narrower the specialty, the more we can know about it. Some wag has said that **we know more and more about less and less until we know everything about nothing.**

A proper response is that knowing more and more about something is not simply understanding more from the perspective of a single discipline. To really understand a system, one must see it from the perspective of a number of relevant disciplines.

As social scientists, we have by deepening our study, developed our discipline to a high degree of complexity. However, an area of greater complexity is the interaction of the disciplines because of the differences in perspectives. Blending the disciplines into an interdisciplinary approach is the great challenge. The reward is also great because the greater understanding enhances the ability to obtain a better balance, which is a value in its own right as well as an accommodation to a diversity of interests. Consider a land use example.

Land Use

From time to time, a major land development project will carry a sign, "progress," or the public relations news releases will tout the development as progress. In such a case there is an ambiguity, or perhaps a hybrid meaning. There are some local economic development goals towards which progress is being made. But, there is also a natural process of evolution underway. The urban areas are an evolutionary phenomenon resulting from other societal developments.

Change is a necessary ingredient in progress. But, change is not necessarily a sufficient condition. Furthermore, change may be regressive. The key lies in the nature of change.

From a societal perspective, we start with a value system. Out of this value system emerges a societal systems for meeting societal needs. Progress may be considered to be the change that enhances the quality of life from a balanced perspective. It may result from an evolutionary process.

The rate of progress has accelerated in recent times. In the area of physical or natural science, there was a scientific revolution during the past few centuries, perhaps starting as early as 1600. The enlightenment, that was part and parcel of the process of change over the past few centuries, brought substantial progress to the social sciences.

Progress in the social sciences has, however, lagged behind that of the physical sciences. Consider the acceleration of the rate of speed at which man could travel as an indicator of progress in the physical sciences. In the pre-enlightenment/scientific revolution era, it took centuries to move from how fast man could run to how fast man could travel by riding a horse. The industrial revolution brought railroad travel with a shift to the speed of trains, and a subsequent acceleration. The early 20th century brought flight with an astounding acceleration in the move from prop to jet travel and then to space

travel. Visualize a graph with the last five thousand years on the horizontal axis and the speed of man on the vertical axis. We have turned the curve in the physical sciences.

We have not turned the curve in the social sciences. But, we have made progress. In the case of land development, there was a time when a picture of a factory with a smokestack, smoke billowing out, was a sign of progress. It took some time to realize that the air pollution was an unwanted side effect so that progress in the sense of moving ahead with a balance in values necessitated a restriction on the pollution.

Requiring scrubbers, a pollutant removing device, was a social as well as technological advance. Devising systems for measuring air as well as water pollution and then using pricing to distribute the rights to emit pollutants constrained to tolerable aggregate levels was an application of developments in the physical sciences, but it was also an application in the development of the social sciences. The issue may seem as though it is the advancement of the social sciences. But it goes beyond - it goes to the application of the knowledge. It is engineering. And, to be realistic, much of our research is engineering based rather than basic research.

Making Progress

The fruitful application of knowledge, whether gained by one's own experience or by the experience of others, requires wisdom. That wisdom is a synthesis of analytical systems and information, including the good judgement that may come with time. It is the sagaciousness that is the rarity, not the information.

The mind is the brain at work. The brain is a wonderful machine, or computer, if you wish. It has a great deal of memory and an exceptional ability to random access relevant information. This facilitates the development of wisdom over time, assuming that one is learning from his or her experiences, or through the experiences of others. These experiences of others may be based upon rigorous analyses as in scientific research. Or, they may be anecdotal. The synthesis is important. So, when we ask, "What was he thinking?" as a comment on a particularly poor decision, we are asking about how the information was processed as well as what were the facts that served as input. Each of us has habits of the mind that influence the path taken through his or her paradigm.

We also have "habits of the heart," i.e., daily practices of life based upon the culture. These mores are, if not alternative systems of decision making, are at least influences that may alter the conclusions that would be reached by a rigorous analysis. And, it may well be that the **habits of the heart blended with the habits of the mind make for the best progress.**

We do not have, at least as far as I know, a comprehensive theory of wise decision making that deals with the synergism of habits of the heart and habits of the mind. And, we certainly don't have a unified field theory, i.e., a theoretical system that integrates the relevant disciplines providing an overarching theory of the system. We operate within the paradigms that we have adopted and do well to recognize and apply such consilience as has emerged. The consilience is the linking of knowledge across disciplines to create a common groundwork of explanation. That is as used by Edward O. Wilson in his book, *Consilience*, that inspired the beginnings of this essay.

Advancing Our Disciplines

Advancing our disciplines may be a misguided mission, at least if we are looking for progress in an evolutionary sense. Advancing relevant knowledge is progress in an evolutionary sense when it is not the result of seeking a solution to help in an engineering application, but rather when it is a basic research endeavor. However, advancing relevant knowledge can be progress in the sense of moving towards a goal. That is the case when one is seeking an engineering solution and engages in applied research to get a better understanding of the system. It may also be the case when, a professor sets the goal of moving toward the advancement of the discipline, and make progress towards it. But it may do less to advance the quality of life (except in a narrow perspective of rank and tenure) than pursuing the advancement of relevant knowledge. There may be a stature in such achievement that goes beyond the rank and tenure indicia.

If one works in applied research, then the focus is on understanding what is necessary to better engineer the process or institutional arrangement. That may require acquiring knowledge in related disciplines and focusing on an integration with a paradigm suitable for obtaining the desired results, an enhancement of quality of life under the accepted value standards, balance considered. If our work is in basic research, then we could get a better understanding of the system by attention to multiple disciplines and focus on subject issues in a paradigm that integrates the various perspectives. This goes beyond the tools of research. It

speaks to the underlying elements that are common the disciplines that are relevant to the issues.

If our work is in the applied research arena, which most of it is, then the focus may well be on the critical gaps in knowledge. As engineers, it does little good to design engines that will drive an automobile at speeds well beyond the capability of the rest of the car to operate. A vehicle should be a balanced system, in order to be most effective, and the most relevant research is that which produces knowledge and solutions that enable such a design. Furthermore, under the concept of balance in values, safety is a consideration so that road design and vehicle speed capability/regulation need to be compatible.

Mismanaged Systems

The academic institutional arrangements for making progress in business administration research are designed so as to foster publishable research in the most prestigious journals. The concept of progress is the issue. Unfortunately, there is little thought beyond the criterion of rigor, as to what should be the most prestigious research. It turns out that it is methodology that drives publishable research. The methodology is very much a fashion item, varying over time with no apparent relationship to societal progress designed to enhance quality of life as discussed earlier.

Why not deal with **research contributing to societal progress as the most prestigious research**, utilizing the rigor that is realistic given the availability of data and the state of the art. University faculty have a responsibility in this area, as does the business community. Yet, in the Porter/McGibbon study, *Management Education and Development*, the lack of relevance of much of the research was noted and astoundingly enough not a matter of concern to the business school deans or their advisory board members.

Where are the forums for searching out the relevant issues and gaps in critical knowledge? We at the Homer Hoyt Institute have a long history of research roundtables. Yet, what else is there?

If universities as institutions were managed so as to facilitate relevant research our society might make more progress. This is not to say that the university determines what is relevant and what is not. Nor is it to say that faculty committees have that responsibility. Individual faculty members make their choices as to their research interests. What is required is recognition of the

relevance as a criterion among the other criteria, including rigor. It is a cultural change that comes as habits of the heart as well as a change that is a habit of the mind.

Think tanks may attempt to fill the breach by searching for relevant areas and then filling in gaps as appears feasible. At least that is what we at the Homer Hoyt Institute have tried to do. In fact, the criteria for Weimer School Fellow projects are not so restrictive as to limit projects to research, let alone only rigorous projects. Our concern is with the advancement of the state of the art and its dissemination. It is a leverage operation and projects which enhance the leverage are as valuable as those that advance the pure research built body of knowledge. Maybe more so because of the rarity of dissemination projects.

Individual Careers

Certainly, the way the system is structured, the incentive is to play the game and advance in academic rank and tenure. Moving along in the university system in that fashion can be called progress. But it is also progress to enhance the quality of life in segments of society that will benefit from the relevant research. The team effort works when all parties are committed to the common goal. It fails when one breaks for individual benefit at the expense of others. While some universities have research centers that operate in a team fashion, team efforts are usually built on a project basis. The sharply focused mission driven research unit is a rarity.

Legacies may be left on the basis of institutions influenced. This is a great opportunity if one subscribes to the philosophy just alluded to. Legacies may also be left on the basis of lives influenced. That is what many professors do on an individual basis as a result of their work in the classroom and outside the classroom. There are also academic legacies that come about because of ideas that are generated. Sometimes the pursuit of the ideas and the institutional change are not popular. But, just as there are righteous people who have left legacies by helping others at great personal risk to themselves, there are crusaders for ideas and institutional change. Sometimes the legacies are left just because we do our teaching jobs as professors, but sometimes because we pursue justice as we see it.

Of particular relevance here is the legacies in academia that are left by the institutions we influence. For our Hoyt Fellows these may be their departments, schools, colleges, or universities. They may also be their professional associations,

and indeed their institutional clients. There are opportunities with these institutions for making progress.

There are also opportunities for legacies in making progress through development of ideas. This may come through the relevant research. It also may come from the dialog at the Weimer School sessions. The exchange of ideas is phenomenal, even when it gets so esoteric that only a few people in the room are following the nuances of the issues. We, at The Hoyt group have a venue for making progress.

Conclusions

As professionals, we are committed to the advancement of the state of the art. How we pursue our mission is a personal choice. The forces of the academic institutions are significant because of their compensation, rank, and tenure structure. But, the stature structure goes beyond the institution. And who is to say that the institution is not becoming obsolete, or at least atrophying. Or changing. And, what may be the role of the faculty in the change.

Making progress may be viewed as individual development as well as institutional development. Setting personal goals is one way to approach a career. Moving with habits of the heart is another. They are not necessarily mutually exclusive. But maximization does not reign supreme. Whatever reigns will do better with a broader understanding of the system and a better understanding of the brain at work.

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