

An Evolutionary Perspective

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With apologies in advance to experts on the theory of evolution, I cannot resist adopting an evolutionary perspective on the growth of knowledge and professional structures in psychological science, the young discipline that is the domain of the American Psychological Society. In particular, I am concerned in this column with two contemporary “evolutionary tasks” of our discipline, namely, overcoming geographical confines, and getting rid of a misunderstood contrast between fundamental science and its practical applications. The evolutionary metaphor could be extended well beyond these two facets, but I will spare the readers of this column my other speculations.

Imagine a species that consists of but a few thousand exemplars spatially distributed over the world, and assume further that only a restricted subset of a few dozen such exemplars can be considered optimal mating partners for each individual. Granting that transport and world-wide communication is not a major obstacle, overcoming incest and enabling unrestricted exchange between as many individuals as possible would be essential for the survival of that species. In the face of several other rival species, predators, and competitors for food and territory, it is important to reach the maximum fitness possible. Incestual interaction with only the most familiar neighbors might be comfortable and convenient in the short run, but clearly detrimental in the long run.

Maybe the analogy is overstated, but I see some similarities to the present state of psychological science. Each subfield of expertise encompasses a few hundred colleagues scattered around the world, and optimal collaborators, or “mating partners,” are unlikely to be available in our own institution. By bridging long geographical distances to find our most productive partners we can also generate a richer and more varied profile of psychological and societal problems that warrant (phylogenetic) learning for our discipline.

One might object, of course, from various local viewpoints, that the quality of psychological science is not evenly distributed over the world but, rather, concentrated in certain areas. This argument, although permissible, is easily discarded with growing experience about international encounters. As a European scientist who is oriented towards leading American journals and who is a member of several American societies, I am convinced that all geocentric protectionism is counterproductive (being aware that protectionist tendencies may be more present on the European side).

The academic environments in leading North American departments are exceptionally stimulating and productive, but a major factor in the creation of such environments is an open-minded policy – letting in talented students and scientists from across the Pacific Ocean as well as from across the Atlantic. American centers of excellence have been fertilized by intellectual power from around the world, which reflects another lesson from evolution: Fitness of individuals is always relative to ecological conditions and affordances, which can give a motivational advantage to less “saturated” countries.

Developments in non-American countries that deserve to be considered and imitated include the Dutch

inter-university graduate-training system, which in my view is at the heart of the Dutch success story; the cosmopolitan orientation of some Australian and Asian universities; and some centers of excellence in Europe. Also, to me, one of the greatest models is the biannual two week summer school of the European Association of Experimental Social Psychology, with some 60 doctoral students from over 20 countries. It is amazing to see how this cross-fertilization enterprise benefits the academic career of most participants, to a great extent thanks to non-European tutors.

The second aspect of the evolutionary metaphor, concerning research and applications, bears on the role of selection mechanisms in the survival of a species. There are several rival disciplines competing with psychology for the study of the challenges of our time: the Internet, the mass media, energy and environmental problems, economic conflict, poverty and injustice, criminality, AIDS and other epidemics, health, sports, and leisure time. In order to not only survive, but also to maximize the reproduction and distribution of beneficial genes, psychology must overcome one of its most inhibiting growing pains: the artificial distinction between theory and applications.

Overcoming the distinction (and separation) of theory and application is essential for optimal selection, because some of the most exciting recent developments arise from the immediate application of fundamental research findings to societal, economical, educational, and health-related problems. Just as scientific revolutions are often brought about by newcomers, basic researchers have begun to play the role of creative newcomers in applied domains. Prominent examples include applications of memory research in forensic settings, statistical illusions in medical counseling, metacognitive implications for education, and cognitive psychology in survey research.

As demonstrated so impressively in the new APS publication, *Psychological Science in the Public Interest*, scientists who dare to leave the ivory tower can make important contributions to real world problem solving and thereby help to select the best exemplars (in terms of persons and ideas) of our species for future competition and fertilization. Hopefully, the expertise and independence of research psychologists, who are first of all committed to validity, critical assessment, and ethical responsibility, will also help to build up a political voice and backbone, and a remedy against uninformed decision and action, misuse of credentials, and against political censorship.