

ACADEMIC SOCIETIES AND THEIR IMPACT ON THIS HISTORY OF COMPARATIVE PSYCHOLOGY

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SUMMARY

The success of disciplines and sub-disciplines is determined, in part, by the effectiveness of their institutional support systems, including academic societies. One of the reasons that comparative psychologists' contributions appear under-appreciated, relative to those of ethologists, sociobiologists, behavior analysts, and others, is the lack of an effective academic society to promote its interests. Comparative psychologists have had only small influence in both broad psychological organizations and interdisciplinary societies. Although the societies founded exclusively for comparative psychologists have had some notable accomplishments, they have been generally ineffective with respect to the promotional matters emphasized herein. Among the reasons for this pattern have been the personalities of leading comparative psychologists, the lack of a coherent set of objectives and approaches, and the lack of a coherent theoretical framework.

INTRODUCTION

Although a case can be made that during the last century the scientific accomplishments of comparative psychology have been exemplary (Dewsbury, 1984), the field has failed to capture the imaginations of either a large number of adherents or the popular media. Comparative psychology lags behind such sibling approaches as ethology and sociobiology in the popular mind. It has been ethologists who received the Nobel Prize and it is ethologists and sociobiologists who appear in the popular media and even have been selected to prepare articles on animal behavior in prestigious publication outlets within psychology.

A variety of factors kept comparative psychologists from being more influential. Whereas the ethologists banded together, seeing themselves as a collective David fighting the Goliath of the dominant American behavioristic school, comparative psychologists lacked a sense of a common enemy, generally had more individualistic personalities, and found themselves fragmented at the periphery of their parent discipline. The result was political ineffectiveness. Part of the problem, which may have been both a symptom and a cause, was the lack of an effective institutional structure to support efforts in comparative psychology (see also Mitman & Burkhardt, 1991). One aspect of such institutional support structure is an academic society that can

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promote the interests of those working in the field. I explore the problems comparative psychologists have faced with regard to academic societies.

WHAT IS COMPARATIVE PSYCHOLOGY?

Some of the confusion about the history of comparative psychology can be traced by the different definitions of comparative psychology used by different writers (see Dewsbury, 1984; 1992a, 1992c). There is no simple, acceptable definition of comparative psychology. In general, comparative psychologists study the genesis, control, and consequences of behavior, typically with nonhuman animals and generally work within an evolutionary and developmental framework. From the beginning, as in the writings of George John Romanes, the foci have been on both instinctive and learned behavior. Although the distinction has not always been made, one can differentiate comparative psychology from both physiological psychology and process-oriented learning psychology in a manner approximating that of the three journals in animal psychology published by the American Psychological Association (APA): the *Journal of Comparative Psychology*, *Behavioral Neuroscience*, and the *Journal of Experimental Psychology: Animal Behavior Processes*. The name "comparative psychology" is unfortunate, because comparative psychologists spend more time describing what the field is not than what it is. The term "zoological psychology," used by Morgan (1894) and Kline (1904), may be preferable because the field lies at the interface between psychology and zoology.

ACADEMIC SOCIETIES IN GENERAL THE ROLE OF ACADEMIC SOCIETIES

Academic disciplines are not created *de novo*, but rather evolve with the changing interests of different groups of academicians. They are "political institutions that demarcate areas of academic territory, allocate the privileges and responsibilities of expertise, and structure claims on resources" (Kohler, 1982, p. 1). The structure of disciplines affects informal contacts among scientists, academic departments, and professional societies. Professional societies provide a tangible basis for identification both in the sense of providing an identity for their members and in specifying which individuals are duly constituted participants in the activity of the discipline. Professional societies play a role in achieving the interests of a group of academicians with common goals and can be critical in securing resources, including funding, physical space for laboratories, journals and space in interdisciplinary journals, and forums for the reporting of the accomplishments of the discipline. The leaders of professional societies often take an active role in furthering the interests of the discipline. They may form alliances with other societies where there are perceived common goals. Thus, for example, the bylaws of the APA begin:

The objects of the American Psychological Association shall be to advance psychology...by the encouragement of psychology in all its branches...; by the promotion of research in psychology...; by the improvement of the qualifications and usefulness of psychologists...; by the

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increase and diffusion of psychological knowledge through meetings, professional contacts, reports, papers, discussions, and publications; thereby to advance scientific interests and inquiry...

This statement, which is typical of such societies, is basically a political agenda. How Academic Societies Form.

The question of how disciplines become differentiated and societies form is a complex one, but the model of Mullins (1973) is helpful. Mullins delineates four stages, beginning with a normal stage, in which there is a loose organizational structure with little coordinated effort among practitioners. This is followed by a network stage, in which a consensus begins to build among a group of trusted assessors, who gradually develop a program, increase their contacts, and decrease contacts with those outside of the network. In the cluster stage clusters of students and colleagues form in a few locations around a small number of leading scientists able to accrue the resources needed to develop the field. The specialty stage emerges as the clusters begin to break up and the members secure positions in other institutions. It is in the specialty stage that journals are formed, departments and positions are established and, presumably, societies are organized. I shall now consider some of the societies to which comparative psychologists have belonged. Within the context of the Mullins model, which is admittedly imperfect, it appears that the communication structure of comparative psychology never reached the fully developed specialty stage.

COMPARATIVE PSYCHOLOGY IN LARGER SOCIETIES

The larger societies in which comparative psychologists have participated have generally been either psychological or interdisciplinary organizations. Psychological Societies

The world's largest psychological organization, the APA, is now over 100 years old. From the beginning, however, comparative psychologists have been peripheral within the APA (O'Donnell, 1985; Dewsbury, 1992b). They were studying nonhuman animals in a field often defined as the study of the human mind and behavior. As noted by Harvey Carr (1936, p. 79), "many of our students expressed an aversion to choosing a thesis topic in this field for fear that they would become known as comparative psychologists, and that this label would be detrimental to their professional placement and advancement." Nevertheless, comparative psychology has had a continuous, if relatively small, presence within the APA. Some comparative psychologists managed to become prominent in the APA; Robert Yerkes, Margaret Floy Washburn, Calvin Stone, and Harry Harlow, among others, became APA Presidents.

At the conclusion of World War II, at a time when the APA was beginning its march toward dominance by practice-oriented psychologists, it adopted a divisional structure that would provide better defined loci for professional interaction within the increasingly large and diverse structure of the APA. However, there was no separate Division of Comparative

Psychology; Division 6 was established as the Division of Physiological and Comparative Psychology. Even that division soon disappeared, as it was merged into the Division of Experimental Psychology within a few years (Dewsbury, 1992d). It was re-established in 1963. Today, Division 6 is one of the smaller APA divisions within the rapidly growing APA; fewer than 1% of APA members belong to Division 6. A 1985 survey of Division 6 members revealed that only 4.4% of them identified comparative psychology as their major research field. Comparative psychologists thus are approximately 4% of 1% of about 72,000 members. There is simply no way in which the interests of comparative psychologists, as comparative psychologists, can be effectively seen and represented within this organization.

Prior to World War II the academic psychologists dominated the APA and secessions came from the applied segments. With the post-war shift in power, two important societies of academic psychologists have budded away from the APA since World War II. The Psychonomic Society was founded in 1959 and held its first meeting in 1960 (Garner, 1976). The Psychonomic Society began as a broadly based group of representatives from various experimental approaches to psychology. Increasingly, however, its membership has become focused on the study of human and animal cognition. Today, it is the premier society for that part of comparative psychology dealing with animal cognition. By contrast, there is little representation in the Psychonomic Society for those comparative psychologists working on instinctive behavior. Indeed, the representation of papers in the Society's primary journal for studies of animal behavior, *Animal Learning & Behavior*, dealing with topics other than learning has steadily decreased (Dewsbury, 1991). Today, the title of the journal hardly seems appropriate for its content.

The American Psychological Society (APS) was formally founded in 1988 and held its first meeting in 1989. Like the Psychonomic Society, it was founded by academic psychologists who believed that their interests were not being properly served within the APA, which was becoming increasingly oriented toward the practice, rather than the science, of psychology. It is too early to tell how well the APS will represent comparative psychology. However, from the small number of articles in its journals and invited papers and posters at its meetings, and from the lack of comparative psychologists in its governance structure, prospects do not appear bright.

Although the analysis thus far has been focused on the large, North American organizations, a similar pattern emerges as one peruses material on the international scene, such as the programs of the International Congresses of Psychology. Indeed, studies of animal psychology have traditionally been even less apparent in psychology in Europe and other parts of the world than in North America. Comparative psychology is but a small part of the Experimental Psychology Society, an organization in the United Kingdom roughly equivalent to the Psychonomic Society in the United States (Boakes, 1987). A survey in the Republic of South Africa revealed that most psychology departments regarded the study of animal behavior as unimportant and did not support research in the area (Simbayi,

1991). According to Ardila (1987), "the promise of comparative psychology, of understanding psychological processes using animal models, was received with uneasiness. Nobody there expected the comparison of psychological processes in different species of animals could help to solve the problems of the Third World" (p. 165). *Interdisciplinary Societies*

Comparative psychologists participate in many interdisciplinary societies, such as the International Society for Developmental Psychobiology, the International Society for Research on Aggression, the American Society of Naturalists, and the American Ornithological Union. However, the interests of these societies generally are relevant to only a small segment of comparative psychologists and psychologists play a relatively small role in most of them. Although the American Association for the Advancement of Science (AAAS), has broader objectives, as with the APA, comparative psychologists are easily swamped within the AAAS.

The premier organization for the study of animal behavior in North America is the Animal Behavior Society (ABS), founded in 1964. This organization is small enough so that the voice of comparative psychologists can be heard within it. I estimate that approximately 35% of the charter members were psychologists (Dewsbury, 1992e). Approximately 34% of the nominees for election to office have been psychologists (Dewsbury, 1992f). The Animal Behavior Society appears to be the most effective organization for the representation of the interests of comparative psychologists. However, there are some problems. At least two-thirds of the members are biologists, thus placing comparative psychologists once more in a minority position, albeit not as badly as in other organizations. More seriously, the ABS is the complement of the Psychonomic Society, serving students of instinctive behavior much more effectively than those of animal cognition or learned behavior. Again, the organization does not provide a focus for the whole field. The British-European sister society of the ABS is the Association for the Study of Animal Behavior (ASAB). Comparative psychology has no greater representation there. In these societies once more, comparative psychology is fragmented.

Again, the scene is similar in other countries. The Japan Ethological Society was founded in 1982, but psychologists make up only 3% of the membership (Murofushi, 1987). When the Ethological Society of India was formed in 1970, it was by a group of zoologists (Balakrishnan, 1990). Dutch comparative psychologists belong to any of several umbrella psychological organizations, the Society for Comparative and Physiological Psychology of the Netherlands Psychonomic Foundation, the Ethology Division of the Foundation for Fundamental Biological Research, or the Brain and Behavior Division of the Foundation for Medical Research, but are a small part of each (Nijssen & van Rijswijk, 1987).

SOCIETIES OF COMPARATIVE PSYCHOLOGISTS

Problems of representation do not plague societies composed primarily of comparative psychologists. There have been several such

organizations, although none has been a potent force in the advancement of the discipline. Early Organizations

The first known organization for comparative psychology was the Society for the Study of Comparative Psychology, founded by physiologist-psychologist T. Wesley Mills at McGill University in Montreal, Canada in 1885 (Cadwallader, 1984; Murray, 1990). The society was composed primarily of students and teachers in the School of Veterinary Medicine at McGill and appears to have been basically a local organization; it had relatively little impact on the development of comparative psychology at large.

A Society for Animal Psychology was founded in Elberfeld, Germany in 1912 (Yerkes, 1913). Robert Yerkes called it "the first Society for the promotion of the experimental study of animals to be founded" (p. 304) and encouraged individuals from around the world to join. I have been unable to trace the fate of the organization. From the time and location, it would appear that it was related to the reports of horses with extraordinary cognitive abilities (Krall, 1912; Pfungst, 1908). It too appears to have had little broad influence.

The Japanese Society for Animal Psychology was founded in 1933, but its members were largely zoologists (Murofushi, 1987). The Southwestern Comparative Psychology Association

Although comparative psychologists met and held regular sessions at the annual meetings of the Southwestern (United States) Psychological Association (SWPA), they formally founded the Southwestern Comparative Psychology Association (SCPA) in 1983. The SCPA is governed by a three-person Board of Directors, and holds an annual meeting in association with the SWPA, at which it conducts a best-student paper competition and runs an invited speaker program. In some respects, it is a model organization, composed of a group of psychologists dealing with a broad range of topics concerning learned and innate behavior. However, the Society cannot, and was not intended to, serve the interests of comparative psychology on the national and international scene. It is strictly a regional organization, with no journals or resources for the widespread dissemination and promotion of comparative psychology. The International Society for Comparative Psychology

The founding meeting of the International Society for Comparative Psychology (ISCP) was held in Toronto in 1983. According to the Constitution:

The International Society for Comparative Psychology is organized for the purpose of encouraging the teaching, theoretical development, and experimental investigation of comparative psychology; that is, the study of the evolution and development of behavior. (ISCP Newsletter, 1984)

Since 1987 it has published a journal of research, the International Journal of Comparative Psychology (IJCP).

The ISCP has been effective in identifying, for the first time, people with interests in comparative psychology on an international scale and bringing them together in a common endeavor. However, the ISCP has failed to accomplish both its stated goals and those discussed herein, primarily because of its failure to involve the more active comparative psychologists in its activities. As noted by Crane (1969), for a societal organization within a research area to be effective, it must involve the scientists who have published in an area more than those who have not. This ties to the "invisible college" notion of Price (1986; Price & Beaver, 1966).

A rough analysis of the publication records of various groups of comparative psychologists was compiled using PsychLit, the computerized database developed by the APA. For the period from January, 1983-September, 1991, I found 630 publications for the 39 members of the 1992 editorial board of the APA's Journal of Comparative Psychology (JCP), or a mean of 16.2 publications per individual. For the same period, the contributors to Contemporary Issues in Comparative Psychology (Dewsbury, 1990a) published 17.2 articles per individual. Eight individuals both served on the board of the journal and contributed to the book. The 21 members of the 1992 editorial board of the IJCP published a mean of just 4.8 articles during this time. No member of the latter board served on the JCP board or contributed to the 1990 Issues volume. These data are difficult to interpret and subject to several sources of bias. Nevertheless, the ISCP network appears characterized by relatively low rates of publication and isolation from the more productive comparative psychologists.

In essence, despite all of its admirable accomplishments in bringing together comparative psychologists on the international scene, a feat not hitherto accomplished, the ISCP does not represent the most productive comparative psychologists of the time. The ISCP has just 150 members worldwide. Because of the nature of its composition and meeting structure, the ISCP cannot serve the representational functions which promote prominence for a subdiscipline. Indeed, the existence of the ISCP appears to be having a blocking effect on other organizational efforts in comparative psychology. With one organization already in place, it would make little sense to begin a competing organization in a field as small as comparative psychology.

WHY HAVE THERE BEEN NO EFFECTIVE SOCIETIES OF COMPARATIVE PSYCHOLOGISTS?

It is clear that none of these societies has been able to provide the kind of structure needed to ensure the political success of comparative psychology. I suggest three sets of reasons that are apparent at this time. **Personalities of Leading Comparative Psychologists**

The first set involves the personalities of the leading comparative psychologists and ethologists. Mullins (1972) suggests that "leadership and charisma may be the most important factors, much more important, for example, than accuracy in intellectual judgment" (p. 79) coalescing effective

organizations. In his study of researchers on phages, Mullins suggests that its leading scientist, Max Delbruck, made many critical errors, but provided critical leadership in the selection of problems and developing social groups.

Some of the leading comparative psychologists appear to have been ill-fitted for this kind of social role. T. C. Schneirla, a man of strong principles and considerable integrity, was unwilling to oversimplify complex phenomena in a manner that would gain popular appeal. He was a quiet man with a turgid writing style (see Turkewitz, 1987). C. R. Carpenter was a loner, who felt unappreciated because the psychologists of his time did not value the observational-field approaches he favored (Teleki, 1981). Although Karl Lashley was an outstanding scientist, he tended to be impatient with organizational details; Beach (1961) portrayed him as better at attacking theories than at building them. Henry Nissen was noted for "his extreme personal modesty and his almost deferential approach to some of his colleagues" (Carmichael, 1965). Calvin Stone was noted more for his determination, adherence to facts, and rigor, rather than dynamism; he had a formal bearing (Carpenter, 1955; Rosvold, 1955). Interestingly, Carpenter, Lashley, and Harry Harlow all were called "iconoclasts" by those writing about them (Beach, 1961; Rosenblum, 1987; Teleki, 1981). All made important contributions to the field, but none possessed the traits of the founders of effective academic societies.

Perhaps the most puzzling failures in this regard were those of Daniel Lehrman and Frank Beach. Lehrman had both charisma and organizational skill. However, he bridged biology and psychology and appears to have felt uncomfortable with the animal psychology of his day (e. g., Lehrman, 1962). Perhaps this, together with death at a relatively young age, explains his role. Beach cared deeply about comparative psychology, was an effective organizer, and was a charismatic individual. He went so far as to complete a textbook of comparative psychology which, however, he never published (Dewsbury, 1990b). He reflected:

By the time the sixteenth chapter was finished I was thoroughly confused and disillusioned. It seemed to me that there simply was no substantive field of comparative psychology (Beach, 1974, p. 55).

Perhaps this explains his minimal organizational activity within the field.
Lack of a Coherent Set of Objectives and Approaches

Comparative psychologists did not share a tightly defined set of objectives and approaches. Each was going in his or her own direction and apparently saw relatively little in common with the work of others. They had multiple identifications, of which comparative psychology was but one. In a manner similar to the failure of coalescence of biologists around the turn of the twentieth century (Appel, 1988), though on a much smaller scale, the differences simply were too great and outweighed the similarities.

What was lacking was a sense of strong identity. Robert Yerkes was one of the outstanding leaders and organizers of psychology in this century.

However, he viewed himself as a "psychobiologist" and developed the field of primatology, but never felt compelled to found a society of comparative psychology. Harry Harlow and C. R. Carpenter also apparently felt little loyalty to comparative psychology as a separate entity. Each pursued his own interests with relatively little coordination with others. Coherence of Theoretical Framework

The third set of reasons is related to the second; it relates to the failure to develop a coherent theoretical framework. In Mullins' model:

the foremost factor in determining whether a coherent group develops...is: Are the scientists involved proceeding only empirically (simply moving from one research problem to another, without benefit of broad, theoretical guidance) or, alternatively, are they carving out a new theoretical orientation and being guided by it? (p. 27)

Hodos and Campbell (1969) overstated the case when they contended that there was no theory in comparative psychology; surely the theory of evolution provided its foundation. What comparative psychologists lacked was a unified program of research that would provide the basis for a clearly differentiated identity (see Dewsbury, 1968). Its guiding theory was too broad and was shared with too many other approaches. It could not guide the coalescence of a fully differentiated "specialty stage" of development. In practice, many comparative psychologists proceeded in the empirical, atheoretical manner suggested by Mullins.

It is important to note that, in this context, the role of theory is not contingent on the long-range correctness of the theory. It is the political utility of a theory in uniting and defining a field that is of concern here (Mullins, 1973). Other Disciplines

The European ethologists had not only charismatic and dedicated leaders, but a catchy and relatively simple set of concepts: fixed action patterns, sign stimuli, innate releasing mechanisms, and the like. Interestingly, and contrary to many authors, these key concepts concerned "proximate" rather than "ultimate" control of behavior. The International Ethological Conferences provided a focus for ethology. Niko Tinbergen moved to England partly to facilitate the spread of ethology (Tinbergen, 1985). In acknowledging congratulatory letters after he received the Nobel Prize, Tinbergen used stationery showing a photograph of a calling gull with the caption "Advance, Ethologia!" The ethologists had a neatly packaged product that could be effectively promoted. Comparative psychology had nothing comparable.

Behavior analysts not only had the charismatic and tireless B. F. Skinner, but a few basic principles of reinforcement that they believed adequate to explain a wide range of behavioral patterns in a wide range of species. Comparative psychologists, by contrast, had no simple schema and could not even provide an adequate definition of their field.

CONCLUSION

Comparative psychologists developed networks of communication. They developed research clusters at places like the American Museum of Natural History in New York, the Institute of Animal Behavior in Newark, New Jersey, and the Yerkes Laboratories of Primate Biology in Orange Park, Florida. They developed journals and had no problem finding meetings where they could present the results of their research. However, the field never gelled as a separate and coherent discipline and it has not developed an effective academic society of its own.

The tragedy of the story is that the quality of the research done by comparative psychologists was comparable to that in competing fields. I believe that we must look to personal and institutional factors to begin to understand the failure of comparative psychologists to gain wider visibility and acceptance.

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