The Scientific Study of American Athletic Performance, 1920-1932

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A growing number of historical studies have addressed issues relevant to athletic performance and the training of athletes. Roberta Park and John Hoberman, for example, have written on the emergence of attempts to study athletics (in England and the United States and Germany respectively) from a physiological perspective. Their studies suggest that traditional attitudes regarding training regimens may tend to have great persistence; hence there is often a reluctance to utilize knowledge obtained by means of basic research on the athletic field. This paper examines attempts to study athletics scientifically, and the responses to such attempts, in the United States in the 1920s and 1930s.

Following World War I, America's interest in fitness and athletics burgeoned The growth of enrolment in colleges and universities. and the concomitant growth of athletic programs at these institutions, fuelled interest in the scientific study of athletes. Of particular interest to the scientist there was the growth of the various research and clinical specializations that make up modem biological science. As an individual able to place upon the body extreme demands, the athlete provided a valuable experimental model. In 1925, Yandell Henderson and Howard Haggard, physiologist's at Yale's Sheffield Scientific School, conducted a series of tests on Yale's 1924 Olympic gold medal eight oar crew team. These tests stressed measures of mechanical efficiency and oxygen consumption; the findings were published in the *American Journal of Physiology.* A group of researchers from Harvard University's Medical School conducted a series of physiological tests on runners in the 1924 marathon in Boston -- the final tryout for the Paris Olympics. This attempted to replicate certain parameters of a study published in the *Boston Medical and Surgical Journal* in 1903 by Dr. R.C. Larrabee and colleagues. In a related study (published in the *Journal of the American Medical Association)* Samuel Levine, Burgess Gordon and Clifford Derick focused upon the development of hypoglycemia in the same group of runners. They found that sugar level declined when measured pre- and post-race.

The response of athletes, coaches and the Popular media to such studies was mixed. An article published in the *New York Times* in June 1924, for example, chided that Henderson and Haggard had "arrived at conclusions that [were] not conclusive." Coaches and athletes, it continued, were interested in practical suggestions for improving the performance of athletes. By the 1930s, some coaches and athletes were learning more about the scientific study of athletes, especially the work of British Nobel prize-winning physiologist A.V. Hill, at lectures and in books such as S.E. Bilik's *Trainer's Bible.* Additionally, many coaches consulted publications such as the *Athletic Journal,* established in 1921. According to John Griffiths, editor, coaching was quickly becoming recognized as a dignified profession; hence, there was a need for such a publication. While the *Athletic Journal* did include numerous articles

on coaching techniques, (and several on injury prevention and recovery and related topics), it rarely included much information of the type that appeared in the *Journal of the American Medical Association* and similar journals.

This paper examines both efforts to scientifically study athletic performance and the differing response to athletes, coaches and the media to such endeavours in the period between 1920 and 1932.

Breaktime