

*Sex Differences in Human Performance*  
Edited by M A Baker  
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## Chapter 1

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# Introduction

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It is not enough for women merely to claim activities and privileges which had previously been confined to men, inevitable as that claim has been in the period of transition. Not all the activities of men are worthy of imitation. An excess of energy in work, and a deadening devotion to work, and intemperate recklessness and license, have sometimes been counted by women as masculine tendencies which they must themselves seek to imitate. So it has sometimes seemed to come about that, as it has lately been put, the emancipation of women has merely meant an escape from one cage to another and drearier cage. The sexes do not play their part in life by their freedom to imitate each other, even though they are entitled to possess that freedom, but by liberating their own native impulses, and in that way building up a richer and more joyous civilization than can ever be founded on the instincts of one sex alone. (Havelock Ellis, 1930)

At the turn of the century, as psychology was building a methodology, researchers were eager to chart the extent of human variation. Studies on individual differences, including race, personality, intelligence, developmental trends and so forth, were common in laboratories throughout Europe and in America. Except for the urgency in the need to classify levels of intelligence, sex was undoubtedly the most intensely studied individual difference. The psychological data alone were sufficiently ample to carry Havelock Ellis through six editions of his book: *Man and Woman*, spanning a period of 36 years from 1894 to 1930 when the last edition appeared. Ellis was perhaps unique as a prodigious collector of facts about sexual behavior, and his like has not been seen before or since. Nevertheless, as his book reveals, the interest in sex differences was a real and enduring enterprise in several laboratories around the world. Two laboratories in the United States, that of Jastrow at the University of Wisconsin and of Helen Thompson at the University of Chicago, were almost

exclusively devoted to the study of sex differences in sensory, motor, and cognitive function.

Whereas, all other branches of the study of individual differences have flourished and spawned numbers of specialist journals, the study of sex differences was abandoned almost totally for nearly 30 years. In fact, it may well have been dying long before the appearance of the last edition of Ellis's book. There is currently no journal devoted to sex differences, and none is likely to appear in the foreseeable future. Meanwhile, individual differences research in intelligence, personality, in alien cultures, and especially in changes over the life cycle, from studies on childhood to studies on aging, has led to sophisticated and venerable branches of psychology. By contrast, the study of sex differences remains in its infancy and had to begin completely anew in the mid-1960s.

In Ellis's book, he reveals a very interesting social phenomenon with respect to scientific research on sex differences. Some laboratories, especially those in the United States, report data in a completely unbiased fashion. Tests were given, measures were taken, data summarized and reported. On the other hand, European researchers were often inclined to make value judgements about their data, usually pointing out whenever and wherever possible that females were 'inferior' on such and such a task. Ellis's great strength (perhaps why his book endured) was his extraordinary objectivity in handling the masses of data he collected from around the world. He consistently argues against interpretations based upon 'inferiority' or 'superiority', or those statements that go well beyond the data. In the introduction to the sixth edition, however, it is clear that Ellis is already under attack from feminists and from educators for daring to publish anything that might suggest that men and women were different. Their objection and those of others was apparently not due to any unevenness in his approach, but because *any* differences between the sexes were seen as politically unsettling. Ellis's position, stated in the final paragraph of this introduction and cited above, is admirably clear in the absence of any but the noblest of motives for ensuring that women reach their ultimate potential.

Nevertheless, the controversy continued and few if any dared to persist in this type of research. Accompanying the rise in the feminist movement, was the growing belief that all of human psychological behavior was entirely determined by social factors. If one could just change society, then human nature would be magically modified. Universal education would make everyone equal and equal was interpreted to mean 'no difference'. It is perhaps this entrenched belief that was the most damaging to the study of sex differences, because it would simply be a matter of time before they would be eradicated. For the same reason the study of intelligence, which bogged down in a perpetual wrangle over the environmental versus genetic determinants, became a counterproductive endeavor.

By the mid-1960s, sex differences research was summarized for the first time in 30 years in a volume edited by Eleanor Maccoby (1966). The change in content was dramatic. Almost all of the chapters in this volume, with the exception of Maccoby's own chapter focus on sex-role socialization as the explanatory mechanism for all

differences between males and females, barring a few 'minor' differences in reproductive physiology. Even the chapter on sex hormones devotes one entire section to the possibility that upbringing may override any action of the sex hormones on the nervous system. Sex-role socialization is a completely new concept. The term never appeared in Ellis's writings.

Maccoby and Jacklin (1974) published their extensive review of the various studies on the psychology of sex differences in 1974. With very few exceptions, the data represent only 15 years of research, almost none of which was carried out systematically or with the express purpose of studying sex differences. Nevertheless, the book has proved to be a landmark, not because of the sophistication in handling the vast array of unrelated data, but because of its comprehensiveness. It was the impetus for new and more focused research on sex differences in psychological functioning. Their analysis of the data suggested that there were four major findings that were sufficiently robust to warrant serious attention: a female advantage in verbal ability, a male advantage in spatial ability, and in mathematics, and evidence for consistently higher levels of aggression in males. In the same year an edited volume on sex differences appeared (Friedman *et al.*) which had a strong biological emphasis. The data were supportive of a biological basis for some sex differences in behavior, especially male aggressivity.

Despite the fact that over ten years (and many more edited volumes) has elapsed since these important publications, sex differences research has not yet come of age. Few laboratories devote 100 per cent of their effort to the study of sex differences. People doing research in the cognitive sciences or in psychophysics consistently assume that the sexes are identical, or that sex should be controlled as a source of 'noise', leading to studies that 'get rid of' sex differences by using only one sex, or using both in equal number. This means that the field is still beset with a data base in which sex differences appeared as a secondary consequence of an experiment largely designed to measure something else.

The ten chapters of *Sex Differences in Human Performance* have as a common theme the nature of sex differences in human performance. These chapters deal with sex differences in physical stamina (Wardle, Gloss, and Gloss), in physiology and response to environmental stress (Greene and Bell), and the degree to which anatomical variation may be relevant in the work-place (Percival and Quinkert). Baker's chapter reviews the literature on sensory sensitivity and pain tolerance and their relationship to the menstrual cycle. The chapter by Asso extends these findings to include circadian rhythms and their impact on a range of psychological functions. Higher level functions, including cognition, learning and memory are dealt with by Anderson. How men and women view each other's competences in mixed and single sex groups is the subject of the chapter by Durkin. Lastly, the implications for some of these findings for the work-place are explored by Redgrove.

This book and others like it (see McGuinness, 1985), is an example of the growing attempt to relate the sex difference research to real world settings. It is my belief that this is the *only* way that research on sex differences will ever become a mature

sub-discipline in psychology. In fact, this message may be true for psychology as a whole. Unless, the findings from psychology are translated into real world contexts, the essential discoveries of the past century will be lost, only to be rediscovered again and again.

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