

Appendix III

Estimates of Significance

(Populations Compared)

EVALUATION OF SIGNIFICANCE of the differences between male and female populations is shown in Table D.

We see from Table D that most significant differences are found between the all-male and the all-female populations. Only in the unilateral responses and in the state-conditioned propensities y and w there are no significant differences observed. In all cases, men have higher indices of cooperation.

Next we see that in the mixed pairs, no significant differences are observed between men and women. The differences between men playing men and men playing women do not reach significance level, with one exception. However, this may be due to the weakness of our test and to the stringency of our significance criterion. In all cases, men playing men have higher cooperative indices.

The rank order of the six comparisons according to the number of significant differences observed is the following:

$$\begin{array}{l} MM > WW \text{ (9)}; \quad MW > WW \text{ (5)}; \\ MM > WM \text{ (4)}; \quad MM > MW \text{ (1)}; \quad WM = MW. \\ WM > WW \end{array}$$

We conjecture that it makes more difference to a woman whether she is playing against a man or a woman than it does to a man whether he is playing against a man or a woman. Moreover when men play against women, the performance of the two sexes becomes practically indistinguishable.

TABLE D

Kolmogorov-Smirnov Two Sample Tests for thirteen of the variables comparing all pairs among four populations: MM = men playing opposite men (N = 140); MW = men playing opposite women (N = 70); WM = women playing opposite men (N = 70); WW = women playing opposite women (N = 140). Entries give populations in which the variable in question has the greater numerical value, where the difference is significant at the .01 level. Zero entries indicate failure of the difference to reach that level of significance. Numbers in parentheses indicate the numerical values of the variable in the two populations compared.

Variable	MM, WW	MM, WM	MM, MW	WM, WM	WM, MW	MW, MW	WM, MW
CC	MM(.51, .22)	o(.51, .39)	o(.51, .39)	WM(.22, .39)	MW(.22, .39)	MM(.22, .39)	o(.39, .39)
CD	o(.08, .12)	o(.08, .09)	o(.08, .11)	o(.11, .09)	o(.11, .11)	o(.12, .11)	o(.09, .11)
DC	o(.09, .11)	o(.09, .11)	o(.09, .09)	o(.11, .11)	o(.11, .09)	o(.11, .09)	o(.11, .09)
DD	WW(.33, .46)	o(.33, .41)	o(.33, .41)	WW(.55, .41)	WW(.55, .41)	WW(.55, .41)	o(.41, .41)
C	MM(.59, .34)	MM(.59, .48)	o(.59, .51)	WM(.34, .48)	MM(.34, .51)	MM(.34, .51)	o(.48, .51)
x	MM(.85, .75)	MM(.85, .78)	o(.85, .79)	o(.75, .78)	o(.75, .79)	o(.75, .79)	o(.78, .79)
y	o(.40, .37)	o(.40, .44)	o(.40, .40)	o(.37, .44)	o(.37, .40)	o(.37, .40)	o(.44, .40)
z	MM(.39, .26)	MM(.39, .29)	o(.39, .33)	o(.26, .29)	o(.26, .33)	o(.26, .33)	o(.29, .33)
w	o(.20, .15)	o(.20, .22)	o(.20, .21)	o(.15, .22)	o(.15, .21)	o(.15, .21)	o(.22, .21)
ξ	MM(.74, .55)	MM(.74, .65)	MM(.74, .68)	o(.55, .65)	MM(.55, .68)	MM(.55, .68)	o(.65, .68)
η	MM(.76, .60)	o(.76, .69)	o(.76, .71)	WM(.60, .69)	MM(.60, .71)	MM(.60, .71)	o(.69, .71)
ζ	MM(.25, .16)	o(.25, .22)	o(.25, .24)	o(.16, .22)	o(.16, .24)	o(.16, .24)	o(.22, .24)
ω	MM(.25, .18)	o(.25, .28)	o(.25, .25)	o(.18, .28)	o(.18, .25)	o(.18, .25)	o(.28, .25)