APPENDIX C

Test Statistics Used in One or More of the Studies

Tests of significance are methods for estimating the likelihood that observed patterns are due to sampling error. As such they make sense only when representativeness can be assumed. Most of the studies at hand here used such tests for assessing whether the associations they found in their sample are sufficiently sizable to be sure that there is also some association in the population this sample as drawn from. Next to tests of association some investigations involved procedures to ascertain that differences in association in sub-samples correspond with differences in the wider reality. Another few used tests for differences in center-measures (mean, modus, median) and methods to ascertain whether the frequency distribution meets specific demands: the so-called 'goodness of fit' tests.

All the methods that figured in one or more of the investigations covered in this book are enumerated on the next page.

TEST STATISTICS USED IN ONE OR MORE OF THE STUDIES COVERED IN ALPHABETICAL ORDER.

symbol	name, description	used for	assumptions	further detail in:
B	Test for correlation using expected normal scores	association (r_{pm}) - 1 sample	- simple random sample - interval level of measurement	Fisher, 1958:201
BCI	Bross' confidence interval for ridit values	goodness of fit - 1 sample - 2 independent samples	- simple random samples - ordinal level of measurement	Bross, 1958
D	Hotelling & Pabst's test for rank-correlation, also called 'Spearman's rank correlation test' (when used for trends called Daniels test).	association (r_s) - 1 sample	- simple random sample - ordinal level of measurement - continual distribution of variables	Siegel, 1956:210.
DMRT	Duncan's Multiple Range Test	difference between pairs of means in analysis of variance	- simple random samples - interval level of measurement	Kirk, 1968:93/94
F^+	Frazer's test for difference	center (median) - 1 sample - 2 dependent samples	- simple random sample - ordinal level of measurement - continual distribution of variables	
Gt	Goodman & Kruskal's test for Gamma	association (G) - 1 sample	- simple random sample - ordinal level of measurement	Goodman & Kruskal, 1979:76
Gt'	Gamma test computed by us on the basis of frequency distributions in the original reports			
NK	Neuman-Keuls test	differences between pairs of means in analysis of variance		Kirk, 1968:9-93
r_1	Fisher's exact test	goodness of fit (proportion) - 2 independent samples	- simple random sample - dichotomized variables - nominal level of measurement	Blalock, 1979:292/7
t	student t-test included: confidence intervals for the mean	center (mean) - 1 sample ($H_o : \mu = k$) - 2 dependent samples ($H_o : \mu_1 - \mu_2 = k$) - 2 independent samples ($H_o : \mu_1 - \mu_2 = k$) - association (r_{pm}): - 1 sample ($H_o : r_{pm} = 0$)	- simple random sample(s) - at least interval level of measurement - normal distribution of population - when used for association: bivariate normal distribution of population	Hays, 1973:392-4
W	Wilcoxon's signed rank test	center (median) - 2 independent samples	- simple random sample(s) - at least ordered metric level of measurement - continual distribution of variables - when used for 1 sample: population distribution is symmetric	Hays, 1973: 780-2
X^2	X^2, Chi-square	association - 1 sample goodness of fit - 1 sample - 2 independent samples	- simple random sample - nominal level of measurement - large sample(s)	Mueller et al., 1970:435-7
Z	Z-test for association Critical Ratio (CR)	association (r_{pm}) - 1 sample ($H_o : r_{pm} = k$) - 2 independent samples ($H_o : r_1 - r_2 = k$)	- simple random sample(s) - at least interval level of measurement - bivariate normal distribution of population	Mueller et al., 1970:407-9