

Threshold Liability Models PRACTICAL

Childhood Autism Spectrum Test (CAST) of 501 MZ & 503 DZ male twin pairs: two cut-offs are used for indicating children who are at risk for Autism Spectrum Disorder (2), a sub-clinical group (1) and unaffected (0).

Practical (1) Run the first part of **ThreshLiab.R**. After inspecting the CTs, run the Saturated model and the 3 sub-models individually. After each run, write down the fit statistics for each test of 'equality of thresholds'. Also, for each model, make a note of the estimates of the Thresholds and the MZ and DZ correlations (use the two tables given below).

SUMMARY OF Fit STATISTICS

MODEL (Tetrachoric Cor)	ep	-2LL	df	$\Delta\chi^2(df)$	p-value
1 All Thresholds free				-	-
2 Sub1: TH tw1=tw2 within MZ					
3 Sub2: TH tw1=tw2 within DZ					
4 Sub3: One overall TH					

THRESHOLDS & TWIN CORRELATIONS

	Twin1		Twin2		Twin1		Twin2		rMZ	rDZ
	TH _{MZ1}	Incmz1	TH _{MZ2}	Incmz2	TH _{DZ1}	Incdz1	TH _{DZ2}	Incdz2		
1										
2										
3										
4										

Practical (2). Run the second part of **ThreshLiab.R** (the ACE Model) and fill out the tables given below.

Fit Statistic

Model	-2LL	df	ep
ACE			

Estimates (with 95% CI) of the full ACE Model

Model	h^2 (95%CI)	c^2 (95%CI)	e^2 (95%CI)
ACE			