

Table S2. Calculation of the chance-corrected agreement

Contingency table presenting counts:

		Test 2		Totals
		+	-	
Test 1	+	a	b	T1 <sub>+</sub>
	-	c	d	T1 <sub>-</sub>
Totals		T2 <sub>+</sub>	T2 <sub>-</sub>	N

Contingency table presenting probabilities:

		Test 2		Totals
		+	-	
Test 1	+	p <sub>++</sub> = a/N	p <sub>+-</sub> = b/N	p <sub>..</sub> = (a+b)/N
	-	p <sub>-+</sub> = c/N	p <sub>--</sub> = d/N	p <sub>..</sub> = (c+d)/N
Totals		p <sub>..</sub> = (a+c)/N	p <sub>..</sub> = (b+d)/N	(a+b+c+d)/N = 100%

Calculation of the expected chance agreement (P<sub>e</sub>) according to Cohen (1960):

$$P_e(\kappa) = \frac{T1_+ \times T2_+ + T1_- \times T2_-}{N^2} = p_{..} \times p_{..} + p_{..} \times p_{..} = (p_{..} + p_{..}) + (1 - p_{..}) \times (1 - p_{..})$$

Calculation of the expected chance agreement (P<sub>e</sub>) according to Gwet (2002, 2008):

$$\begin{aligned} P_e(\gamma) &= 2 \times \left( \frac{(T1_+ + T2_+)/2}{N} \right) \times \left( \frac{(T1_- + T2_-)/2}{N} \right) = 2 \times \frac{(p_{..} + p_{..})}{2} \times \frac{(p_{..} + p_{..})}{2} \\ &= 2 \times \frac{(p_{..} + p_{..})}{2} \times \left( 1 - \frac{p_{..} + p_{..}}{2} \right) = \frac{(p_{..} + p_{..}) \times (p_{..} + p_{..})}{2} \\ &= \frac{(p_{..} + p_{..}) \times [2 - (p_{..} + p_{..})]}{2} \end{aligned}$$

Calculation of the observed agreement (P<sub>o</sub>):

$$P_o = \frac{a + d}{N} = p_{++} + p_{--}$$

Calculation of the chance-corrected (beyond chance) agreement:

$$AC_1 = \frac{P_o - P_e}{1 - P_e} = 1 - \frac{1 - P_o}{1 - P_e}$$