

10th. March 1947.

My dear Race,

The new estimates are

	%		%	
r	38.86134	R'	0.98349	Combinations known or believed to exist have estimates zero if the data do not demonstrate their existence.
R ₀	2.56677	R ₁	40.75499	
R''	1.18819	R ₁ ^W	1.29296	
R ₂	<u>14.10870</u>	R ₂	<u>.14356</u>	
c	56.72500	C+C ^W	43.27500	
				E 14.54045 %
				D 58.96698 %

As a check notice that in the two series there are

cc	647
c(C+C ^W)	975
cc, cc ^W , c ^W c ^W	<u>378</u>
	2000

so that the simple estimate

$$c = \frac{2(647) + 975}{4000} = .5672500$$

agrees with the values obtained.

The accompanying sheet gives

- (i) Frequencies per cent of 36 genotypes
- (ii) Frequencies per cent of 20 phenotypes distinguishable with the six sera used in the second series.
- (iii) Expectations and numbers observed in 26 observation classes for the two sexes.

Throwing together the ten classes with expectations each less than five, the seventeen classes give $\chi^2 = 8.2443$, for which the degrees of freedom are

$$17 - 8 = 9.$$

Finally

R_0	2.56677	%	
$R''+R'+R_2$	2.41524	%	
Difference	.15153	±	.52474.
<i>for comparison</i> R''/rR_2	.2167		DE
$R'/r(R_1+R_1^W)$.0602		OD
$R_2/R_2(R_1+R_1^W)$.0411		CE

The first is still greater than the sum of the other two.

$$2R'R_2/R_1 \quad .000114$$

giving an estimate of R_2 more like 100 than 50 per million; *this is because R_2 has you up.*

Yours sincerely,

Have you thought of a title for the B.A. Anthropology?

	Frequencies expected %	Phenotype	Exp.	Obs.		
rr	15.1020	15.1020	302.040	307	.0815	B/A series
R ₀ r	1.9950	2.0608	41.216	42	.0149	"
R ₀ R ₀	.0659					
R''r	.9235	.9235	9.909	7	.8540	Second series
R''R''	.0141	.0141	.151	0		"
			8.692	12	1.2590	Fruit series
R ₂ R ₂	1.9906	2.3259	24.957	29	.6550	Second
R ₂ R''	.3353					
R ₂ R ₀	.7243	11.7510	120.088	137	.9444	Second
R ₂ r	10.9657					
R ₀ R''	.0610					
rR'	.7644	.7644	15.288	16	.0332	B/A.
R ₁ R ₀	2.0922	33.8186	362.874	354	.2170	Second
R ₁ r	31.6759					
R ₀ R'	.0505					
R ₁ ^w R ₀	.0664					
R ₁ ^w r	1.0049	1.0713	11.495	9	.5415	Second
			323.429	326	.0204	Fruit.
R''R'	.0234	.0234	.468	0		B/A.
R ₁ R ₂	11,5000	12.9478	138.930	138	.0062	Second
R ₁ R''	.9685					
R ₂ R'	.2775					
rR _z	.1893					
R ₀ R _z	.0125	.0745	.799	0		Second
R ₂ R _z	.0687					
R''R _z	.0058					
R ₁ ^w R ₂	.3648					
R ₁ ^w R''	.0307	.3955	4.244	6		Second
			124.383	126	.0210	Fruit.
R'R'	.0097	.0097	.194	0		B/A
R ₁ R ₁	16.6097	17.4113	186.823	178	.4167	Second
R ₁ R'	.8016					
R ₁ R ₁ ^w	1.0539	1.0793	11.581	12	.0152	Second
R ₁ ^w R'	.0254					
R ₁ ^w R ₁ ^w	.0167					
			171.563	183	.7624	Fruit.
R ₁ R _z	.1985	.2033	2.181	4		Second
R'R _z	.0048					
R ₁ ^w R _z	.0062	.0062	.067	0		Second
R _z R _z	.0006	.0006	.006	0		Second
			1.948	1		Fruit.
		99.9999	199.998	2000		
Sum of 10 small classes			10.237	11	.0569	

$$\chi^2 = 8.2443 \quad 17 - 8$$

$$n = 9$$