12/~~21~~/62

Crow

Dear Jim —

Thank you for the note on sex ratio. It was just what I remember we had discussed. May I quote it in brief paraphrase? I think you should publish it.

Have you seen Anthony Edwards' Ph.D. thesis (largely on the same topic)? I could only glance at it in Luca's office.

Your argument illustrates the weakness of the definition of fitness as "expectation of offspring" — it should be ancestral representation in (indefinite) progeny. So, in the instant case don't you have to follow through for n generations, not just 2, since the grandsons have different ~~sex~~ fitness than the granddaughters? Plainly this will not affect the equilibrium conditions.

see over

CRW

What penalty of differential fertility will just balance a bias in sex ratio?

As you point out, at equilibrium, $\bar{p} = 1/2$, there is no selective pressure on the genes, and there is presumably a grand mess of genes for excess males and females all balancing off to give a conception ratio >> 1 and a maturity ratio ≈ 1. The distribution of family composition doesn't show very much evidence of this, does it?

In man, what is the actual effect of family composition ~~on the~~ from which an individual comes on his fecundity? At least in older times, a girl from a large sibship of girls might be more likely to end up a spinster, and I bet this is still true, don't ask me why.

* This may be more important if, as is likely, the modifier is autosomal but affects only the male. For then the expectation of an F_3 depends not only on the numbers in the F_2, and their sexes, but also whether the modifier is transmitted to the F_1 of either sex.

With best wishes, and for the season too,

As ever

Joshua