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Abstract
Seven ascospores from one ascus of a biparental mating were all the genotype of one parent. Neither mating type substitution nor mutation of the mating type explain this aberrant result.

Uniparental progeny in *Neurospora crassa*

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An ordered meiotic tetrad (an octad) had seven viable members all with the same genotype. A uniparental self-mating occurred in one ascus. Thirty six other tetrads isolated from the same mating were biparental. This is the first such Neurospora tetrad that I have isolated in countless numbers (certainly hundreds) of ordered and unordered tetrads. The parents in the cross were *chol-2 ylo-l trp-2* mating type *a* and *T(IIR;VIR)R2459 arg-12 fl* mating type *A*. The number 4 spore of the unusual octad was yellow, did not ripen into a typical black spore, and did not germinate: an apparent spontaneous abortion. The other seven ascospores produced cultures which were *chol-2 ylo-1 trp-2; a*, exactly like one parental type. All seven produced abundant ascospores in matings with *A* tester strains (*fl*, FGSC# 4317) and were infertile in tests with a standard *a* mating type (*fl*, FGSC# 4347). They all had normal chromosome sequence, not the *II:VI* translocation of the other parent of the intended cross. With the expectation that a mating type mutation might have occurred, all seven tetrad members were crossed in all combinations between each other and in effect by themselves. All combinations were infertile. Zickler *et al* (1995 Genetics **l40**:493-503) report that mutants of mating type genes of *Podospora anserina* lead to selfish nuclei which produce uniparental progeny and haploid meiosis. This unique tetrad of *Neurospora crassa* does not have the same explanation but suggests a one time failure to distinguish self from non-self when two same mating type nuclei entered one ascus where fusion and meiosis followed.
