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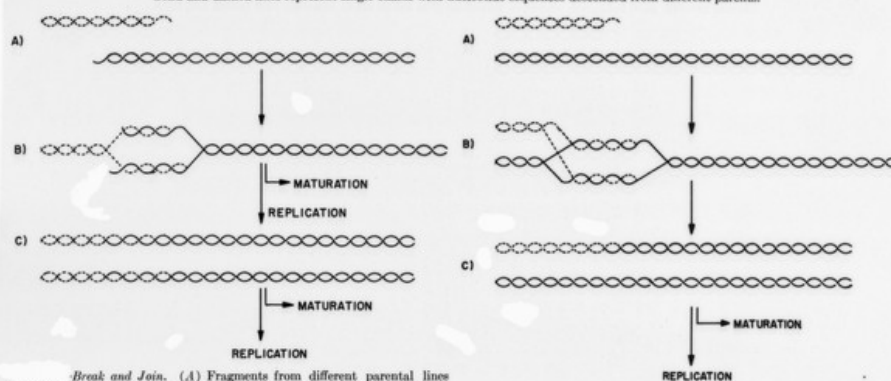
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# MODELS FOR RECOMBINATION BY BREAKAGE OF DNA MOLECULES

Solid and dashed lines represent single chains with nucleotide sequences descended from different parents.



*Break and Join.* (A) Fragments from different parental lines possessing a region of common nucleotide sequence. (B) Association of fragments by complementary base-pairing in the region of common sequence. The recombinants with 90% parental DNA observed in the present experiments would contain chromosomes resembling this structure. (C) The two replication products of (B). Some of the recombinants with 45% parental DNA would have this type of structure.

*Break and Copy.* (A) An intact molecule and a fragment from different parental lines. (B) Association by complementary base-pairing over a region of common nucleotide sequence. (C) The fragment is restored by copying the intact molecule. The recombinants found with 90% parental DNA would correspond to the restored fragment.