



Figure 6. H3-H4 partitioning during nucleosome assembly. Upon nucleosome disruption during replication, parental (H3-H4)₂ tetramers can either remain intact (Unsplit) or broken up into two H3-H4 dimers (Split). Old nucleosomes will form either by inheritance of a stable (H3-H4)₂ tetramer (A) or by self-reassociation of two old recycled H3-H4 dimers (B). On the other hand, new nucleosomes result from de novo assembly of two newly synthesized H3-H4 dimers (C). Mixed particles can form on daughter strands by mixing an old H3-H4 dimer together with a new H3-H4 dimer (D). In all cases, association of two H2A-H2B dimers is necessary to complete the nucleosome. A modification on H4 is illustrated on the parental nucleosome to show the concept of intraparticle propagation of the mark between parental and new histones (D). (Adapted, with permission, from Nakatani et al. 2004; also MacAlpine and Almouzni 2013, © Cold Spring Harbor Laboratory Press.)