



Figure 3. Ciliate DNA rearrangements. The four classes (a–d) of DNA rearrangements that occur during development of a new macronucleus are illustrated as listed. The presence or absence of each class is indicated for the ciliate species *Paramecium*, *Tetrahymena*, and *Oxytricha*. Colored bars are internal eliminated sequences (IESs) removed by precise or imprecise deletions or alternatively by fragmentation coupled with telomere (G4T2)_n addition. The conserved, 15-bp chromosome breakage sequence is denoted by the star. DNA unscrambling reorganizes the “exons” (numbered boxes) misordered in the micronucleus.