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Part-I
Paper-III
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Hemixis Method (Paramoecium)

- P. aurelia exhibits a simple method of Nuclear change.
- It differs from that of Binary fission, Conjugation, Autogamy or Endomixis.
- Diller (1936) reported the Hemixis.
- It is primarily a process of Macronuclear fragmentation and division without any unusual Micronuclear activity.
- Diller classified Hemixis into four types, namely - A, B, C, and D. But otherwise, he also encountered all types in mass culture of P. caudatum & P. multimicronucleatum.
- As type A is the simplest form of Hemixis characterized by a division of the Macronucleus into two or more parts. This division is not synchronized with Micronuclear division.
- Type B, is characterized by the extension of one to 20 (Twenty) or more Chromatin balls from the Macronucleus into Cytoplasm.
- Type C is characterized by the simultaneous splitting of the Macronucleus into two or more major portions & the extension of Macronuclear balls into Cytoplasm.
- Type D, is considered to represent pathogenic condition in which the Macronucleus undergoes complete fragmentation into Chromatin balls that eventually disappear from the cell. Micronuclei generally disappear before the dissolution of the Macronucleus.

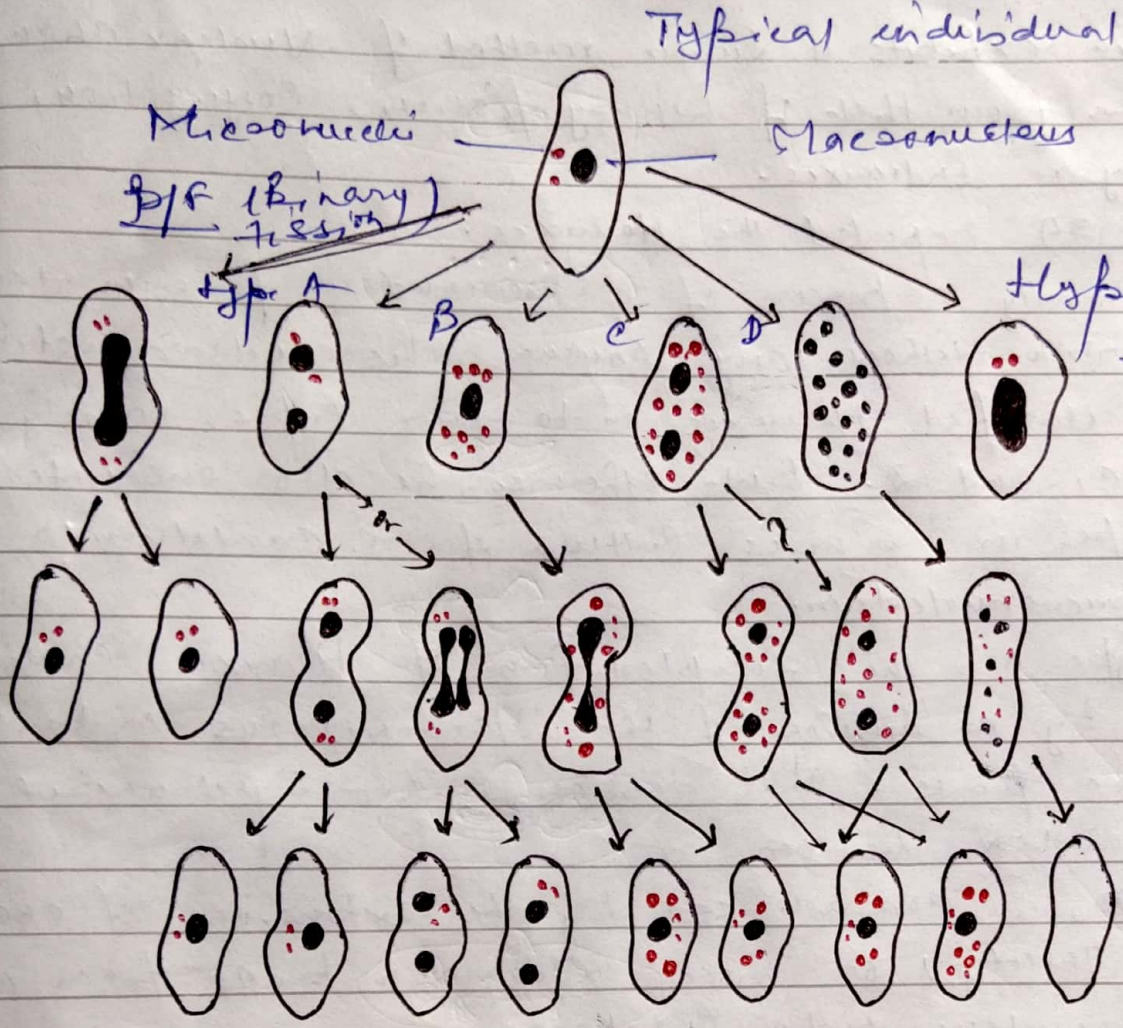

Fig - shows. P. aurelia (Diagrams of the Macro - nuclear behaviour during Hemixis)