Biological explanations for Schizophrenia - Genetics

- **Family studies** - whether biological relatives more likely to be affected than non-relatives. If genetic bases then more apparent in closely related family members. Kendler found first degree relatives were 18 more times likely to be at risk than general population. Genetic support.

- **Twin studies** - ID twins who share 100% of genes, compared to non identical twins. Both sets of twins share same environment to discount nurture. High concordance rates in ID twins would suggest genetics. ID more likely than Non ID. Joseph ID studies had concordance of 40% whilst non ID 7.4%.
  
  Assumption that ID and non ID share same environment- ID more likely to be treated similarly, explain higher concordance due to nurture. Non ID treated differently.

  Diathesis stress model- genetic vulnerability.

- **Adoption studies** - group of adopted children with bio parents with SZ compared to adoptees with non SZ parents. Separate role of nature and nurture. Tienari 164 adopted children whose mothers had SZ, 6.7% of children shared diagnosis compared to 2% out of 197 children with non SZ mothers.

  Adopting parents influenced by selection bias- meant to be the same likelihood of adoption. But US and Denmark, adopting parents told of biological disorders of parents.

- **Methodological issues** - heredity studies. Problems with Tienari people reared in families with poor communication at increased risk of developing SZ. Incorrectly identified as people with poor communication skills might be seen as it. Due to social learning affecting this ability.

  Genetic basis supported by continuously changing diagnostic criteria. No cases of “full SZ” among first degree relatives of adopted children identified with schizophrenic spectrum disorders. Most adoption studies finding evidence for genetic link would have excluded “non psychotic”.

- **Family studies** higher rate of SZ among those most closely related- explained due to psychological factors such as similar learning environment resulting in similar behaviour, interpreted as SZ symptoms.

- **Reductionist** - Genes not only factor. Even ID twins have less than 50% concordance. More complex than only due to genetics. Oversimplifying through biology limits progress in identifying cause.

- **Deterministic** - in assuming biological predisposition could lead to SZ onset. If Id twins with same genetic makeup can differ in diagnosis, so biology cant even determine.

- **Brain scans** - Ventricles 15% larger than non SZ. Bornstein larger ventricles associates to neg. symptoms, ventricles link to poor brain development. No cause and effect.

- **Evolutionary approach maybe better?** - Across all people, even in remote tribes. SZ personality to split up tribal communities when got too big, to deal with less resources. Symptoms influence unhappy members to leave group. No scientific validation.