

- A DMC specified by (α, Z) is a sequence of replicates of a **generic discrete channel** (α, Z) .
- Z_i is the noise variable for transmission at time i , and has the same distribution as Z .
- Memoryless Property (Independent noise):

Z_i is independent of (X_i, T_{i-}) .

- That is,

The noise for transmission at time i is independent of both X_i and everything in the past.