

Microbial Operational Taxonomic Unit Analysis

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Data

- ▶ Sample size: twelve infants with six breast-feeding and six formula-feeding
- ▶ Number of features: one hundred and sixty-two species of operational taxonomic units based on the second level SEED subsystem

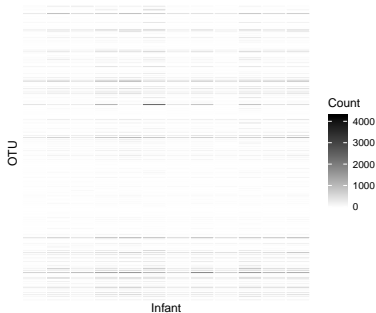


Figure: Raw Count Data

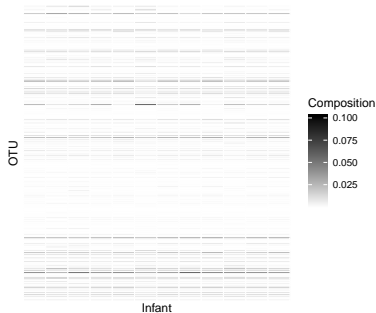


Figure: Compositional Data

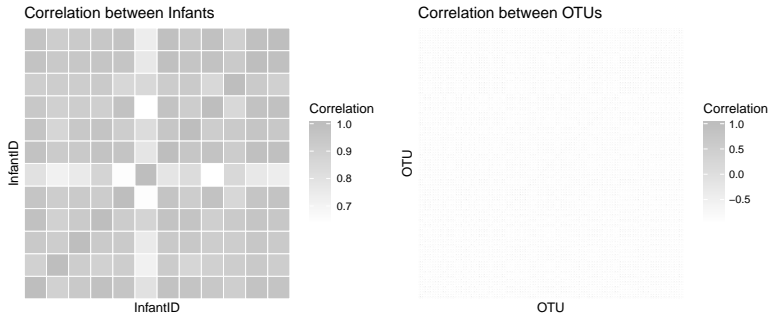


Figure: Visualization of Correlation Structure

Model

- ▶ Indian Buffet process
- ▶ Latent indicator model
- ▶ Dirichlet-multinomial distribution

Inference

- ▶ Markov chain Monte Carlo method

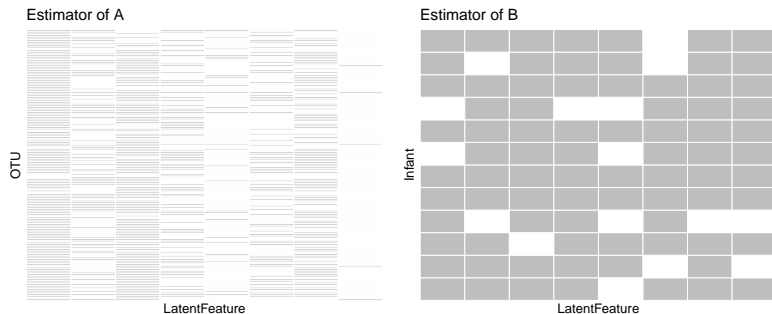


Figure: Estimator of A and B