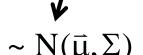
Latent Rating Regression [Wang et al. 10]

- Data: a set of review documents with overall ratings: C={(d, r_d)}
 - d is pre-segmented into k aspect segments
 - $-c_i(w,d)$ = count of word w in aspect segment i (zero if w didn't occur)
- Model: predict rating based on d: p(r_d | d)

Overall Rating = Weighted Average of Aspect Ratings

Multivariate
Gaussian Prior



$$r_d \sim N(\sum_{i=1}^k \alpha_i(d)r_i(d), \delta^2),$$

$$r_i(d) = \sum_{w \in V} c_i(w, d) \underline{\beta_{i,w}}$$

$$\beta_{i,w} \in \Re$$

Aspect-Specific Sentiment of w

Aspect Rating = Sum of sentiment weights of words in the aspect