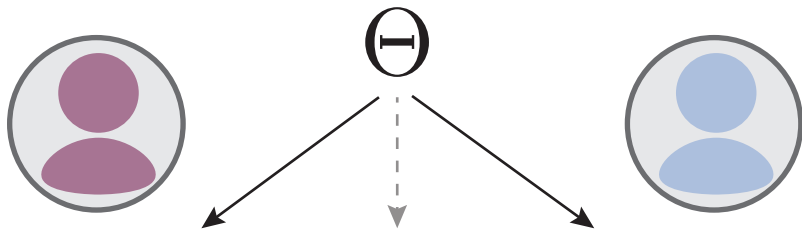


shared representation



lexical prior for  
novel partner

$$P(\mathcal{L}_1 | \Theta) \cdots P(\mathcal{L}_i | \Theta)$$

partner-specific  
representation

$$P(\mathcal{L}_1 | \Theta, D_1) \cdots P(\mathcal{L}_i | \Theta, D_i)$$