



Figure 1: Bayesian data analysis model to infer RSA model parameters and generate model predictions. RSA model (S_2) predicts the utterance production data (d^{prod}) for each utterance w , state s , goal g , and participant i . The RSA model relies upon the literal semantics of each utterance for each state $\theta_{s,w}^{lit}$, constrained by the data from the literal semantics task d^{lit} (see Supplement). The S_2 model generates predictions given goal weights ω_g and intended social weight ϕ_g , which varies by the goal condition g . RSA model has two global free parameters: the speaker optimality parameter α and the utterance cost of negation c (or, cost in terms of number of words).