Extending the semantic cognition model to two new domains

Team S.O.Z.Y.

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Our plan is to expand upon the recurrent neural network framework built out in the first homework assignment in order to compare the dynamics of differentiation in development for two different sets of facts:

1. Food
   a. *Pizza has cheese*
   b. *Falafel is Middle Eastern*

2. Planets
   a. *Jupiter is a gas giant*
   b. *Earth is habitable*

Tentatively, we will draw recipes from an online source (TBD) and standardize them for input to the model. We will compile a similar set of standard facts for the set of planets (e.g., Jupiter: {size: gas giant; color: red; etc.}).

We will modify the list of relations utilized in the homework assignment (e.g., there may not be a "can" relation for planets).

Our goal is to try to build a basic interface for yes/no question-answering overlaying our models. We will also attempt to study the effectiveness of multiple methods for binarizing the outputs of our network such that it produces a yes/no answer.