Fig. 4: The detailed information on the dataset of SNLI. The upper figure represents the accuracy results of training and test in different epochs, and the lower figure indicates the losses of them.

TABLE II: Comparison among CKG+ELMo and other models in QQP, SSTS-5, and MRPC tasks

<table>
<thead>
<tr>
<th>Model</th>
<th>NFGEC ( Attentive )</th>
<th>NFGEC (LSTM)</th>
<th>ERNIE (tsinghua)</th>
<th>CKG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc.</td>
<td>45.50</td>
<td>55.60</td>
<td>57.19</td>
<td>58.84</td>
</tr>
<tr>
<td>Macro</td>
<td>74.76</td>
<td>75.15</td>
<td>76.51</td>
<td>76.23</td>
</tr>
<tr>
<td>Micro</td>
<td>71.58</td>
<td>71.73</td>
<td>73.39</td>
<td>75.24</td>
</tr>
</tbody>
</table>

Fig. 2: Partial Knowledge Graph from Dbpedia. The figure shows that 'apple' could be a kind of food, as well as a company. We can get the precise meaning of 'apple' by the neighbours around it.

Fig. 4: The detailed information on the dataset of SNLI. The upper figure represents the accuracy results of training and test in different epochs, and the lower figure indicates the losses of them.

TABLE III: Comparison of models in word similarity with rank of spearman. And the comparison of word analogy in semantic, syntactic, average.

<table>
<thead>
<tr>
<th>Task</th>
<th>GloVe</th>
<th>ELMo</th>
<th>CKG+GloVe</th>
<th>CKG</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQuAD</td>
<td>80.8</td>
<td>85.8</td>
<td>85.6</td>
<td>88.7</td>
</tr>
<tr>
<td>SNLI</td>
<td>88.1</td>
<td>89.1</td>
<td>90.2</td>
<td>91.1</td>
</tr>
<tr>
<td>NER</td>
<td>87.7</td>
<td>91.9</td>
<td>-</td>
<td>92.56</td>
</tr>
</tbody>
</table>

TABLE V: The set of comparison of the five models. We compare SAN, ELMo, BERT (base), with CKG and CKG+ELMo across SQuAD task. The "INCREASE" column lists improvement over our baseline.

<table>
<thead>
<tr>
<th>Model</th>
<th>SAN</th>
<th>ELMo</th>
<th>BERT (base)</th>
<th>CKG</th>
<th>CKG + ELMo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>84.4</td>
<td>85.8</td>
<td>88.5</td>
<td>88.7</td>
<td>89.2</td>
</tr>
<tr>
<td>INCREASE</td>
<td>1.66%</td>
<td>4.86%</td>
<td>5.09%</td>
<td>5.69%</td>
<td>-</td>
</tr>
</tbody>
</table>