|  |  |
| --- | --- |
| **Good** | **Bad** |
| decent | funny |
| great | terrible |
| nice | good |
| superb | horrible |
| terrific | poor |
| fantastic | fancy |
| wonderful | disappointing |
| reasonable | cheap |
| fabulous | shabby |
| excellent | obvious |
| impressive | negative |
| seamless | weird |
| lovely | breaker |
| bad | spectacular |
| solid | affected |
| fair | silly |
| hefty | awful |
| awesome | waterproof |
| cheap | slippery |

As we can see from the above list, the words on the left-hand side are most likely similar to “good” positive expect “bad”. The same scenario on the right-hand side, some of these are close semantically to bad, but others, like ”good” ”fancy” and “spectacular”, are antonyms for “bad” negative. The reason why this has happened is the Word2vec does not capture similarity based on antonyms and synonyms. Word2vec would give a higher similarity if the two words occur in similar contexts, for example, The Japanese cheesecake is \_\_\_\_ . The blank could be filled by both yummy and yucky hence the similarity would be higher. This concept is called Paradigmatic relations.