Computational Creativity, Fall 2017
Classroom tasks for week 2: Linguistic creativity

These tasks are meant to be carried out (and discussed) in the classroom. The answers will not be collected and will not affect your grade.

Instructions: First, work on these tasks individually. You can write your answers on this paper. Then discuss the tasks in groups, discussing and solving differences and possible issues. Try to understand the topics, possibly from different viewpoints, and also help you group members learn.

Assume that you have a corpus of analogies obtained by using the linguistic pattern “* is as * as a/n *”, where the first wildcard matches nouns as target concepts, the second wildcard matches adjectival properties, and the last wildcard matches nouns as source concepts. An example analogue retrieved by this pattern is “cat is as quick as a fox”. Here “cat” is the target, “fox” is the source, and “quick” is the adjectival property (of “fox”) in this analogue.

1) Consider applying the cut-up technique, introduced on Monday, to produce new analogies from a set of existing ones (such as “cat is as quick as a fox”). The cut-up technique uses two existing artefacts, cuts them both somewhere, and then recombines the parts in a new way.

   a) How could you choose two analogies from the corpus to be cut-up? Think of at least three ways. (Remember that you can use additional resources for this task.)
      i) 
      ii) 
      iii) 

   b) Consider different points in the analogues where one could perform the cut-up. In particular, is it before the adjectival property or after it? Or at another point? What kind of implications does this choice have?

   c) How could you evaluate the newly produced analogies? List at least three criteria:
      i) 
      ii) 
      iii)
Let the corpus of analogies be all possible analogies that can be produced using Thesaurus Rex and Galvan et al.’s (2016) approach.

2) How would you employ the cut-up technique to expand the search space for interesting analogies?
   a) What kind of criteria would you use in selecting the two analogies to produce results not covered by Galvan et al.’s (2016) approach?

   b) What kind of criteria would you use to evaluate the newly generated analogies?

   c) In case the newly expanded space did not have interesting concepts, what would you do?

   d) Reflect on this approach using Wiggins’s (2006) framework.

Suppose that the corpus is now a repository of human-written poems and you want to generate new poems.

1) What would you choose to be cut-up (e.g. entire poem, verse, … etc)?

2) What criteria would you employ in the selection phase?

3) Where would you cut-up the two selected things?

4) State three criteria that you can enforce to generate novel and creative poems?

5) Suggest two usages of knowledge-bases that can be employed in your system and how would you utilise them?

6) Consider using rhyme-as-a-reason in poem generator, would it make the system creative? Would it make the output produced be more preferable by humans?