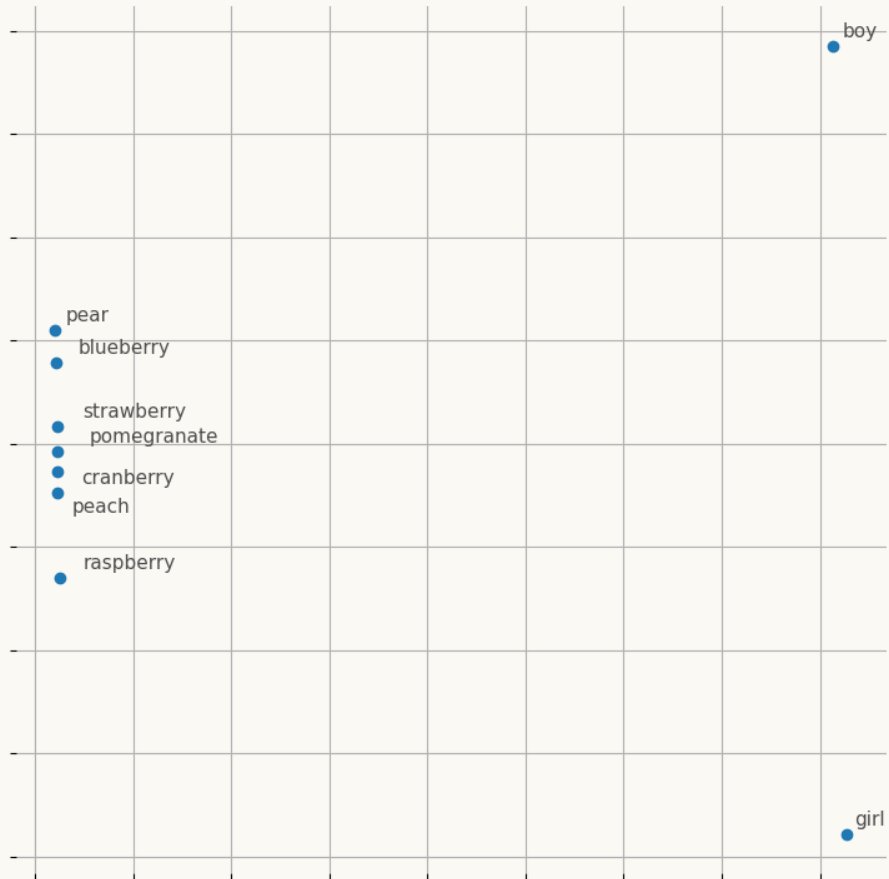**Projections**
By Jord Liu

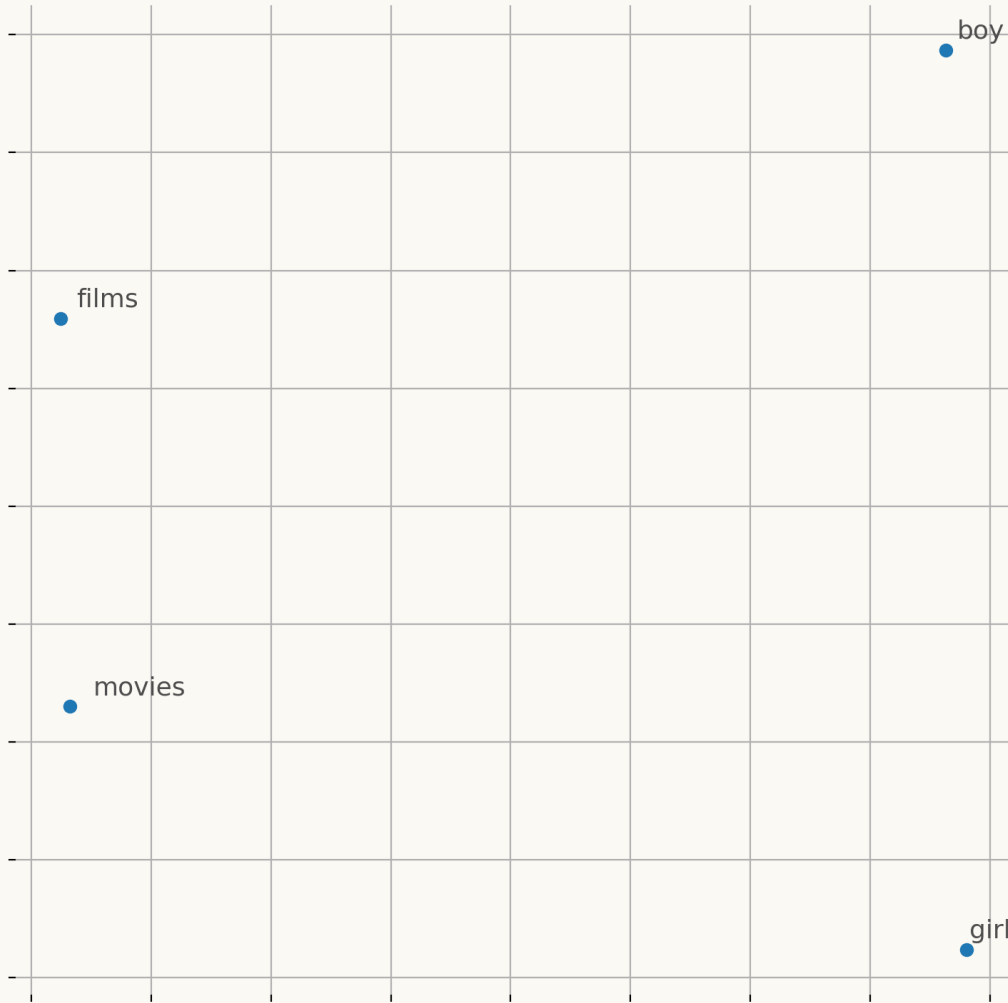*Q: What fruit is the girliest?*
A: Raspberry.

Using word embeddings trained on Twitter with the Word2Vec algorithm, I turned words into points in high dimensional space. I then calculated the vector from "boy" to "girl" and used it to sort collections of other words from most boyish to most girlish by flattening, or projecting them onto that vector.

I used this method to create a computer program which takes collections of previously ungendered words as input, and outputs graphs of the sorted words, where the amount of space between each one can be seen relative to the distance between "boy" and "girl."

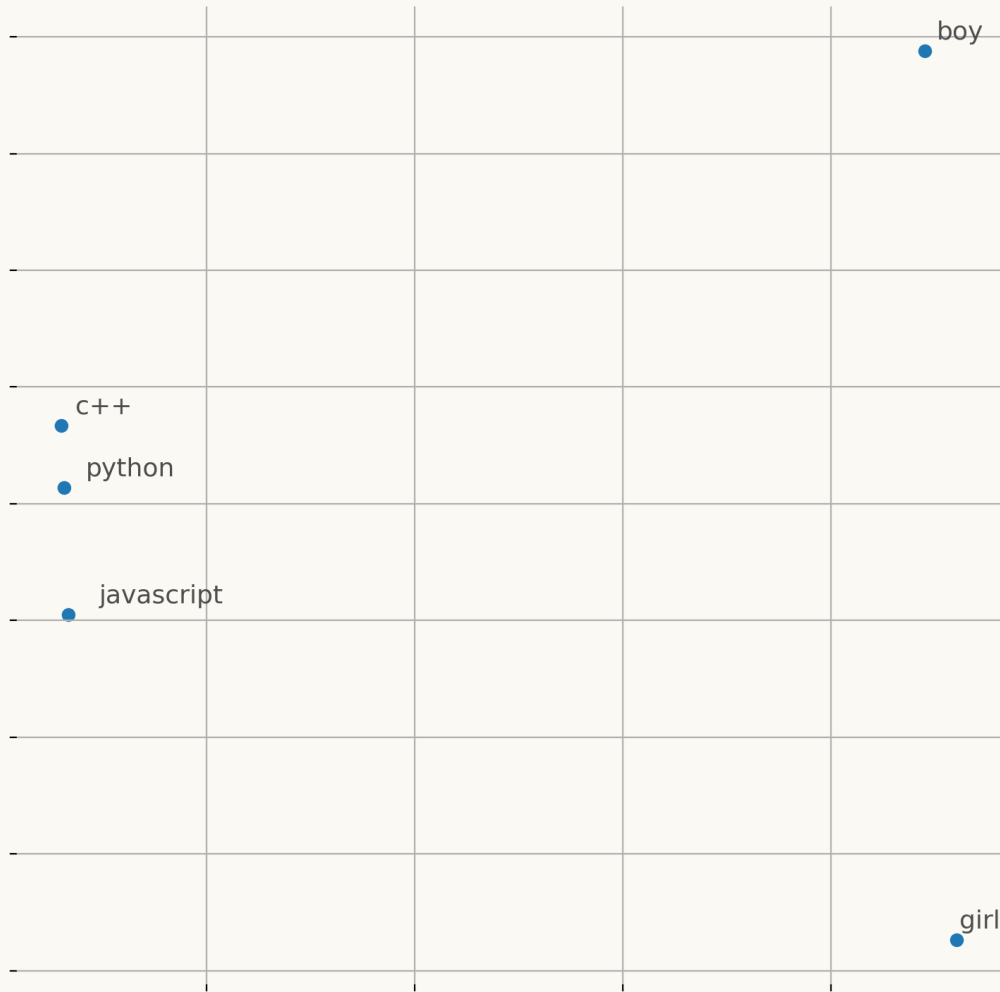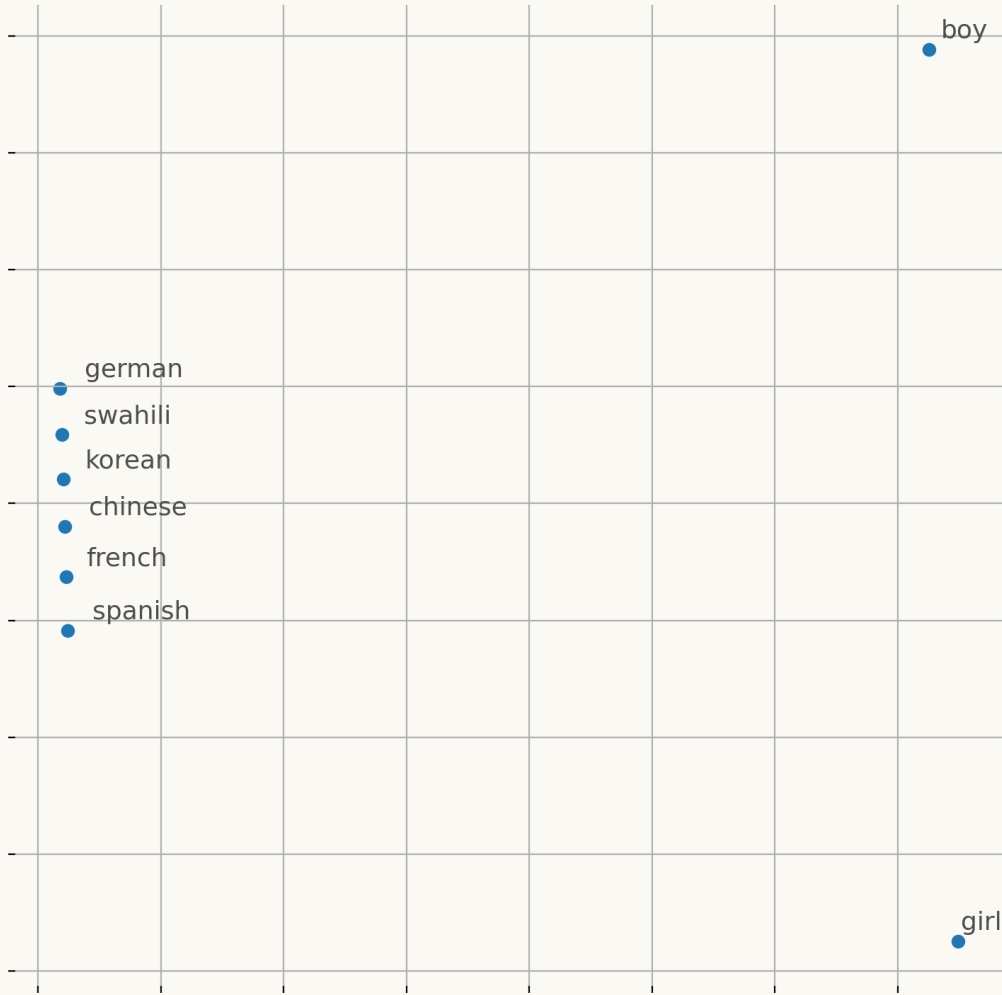The result is a series of newly gendered things.
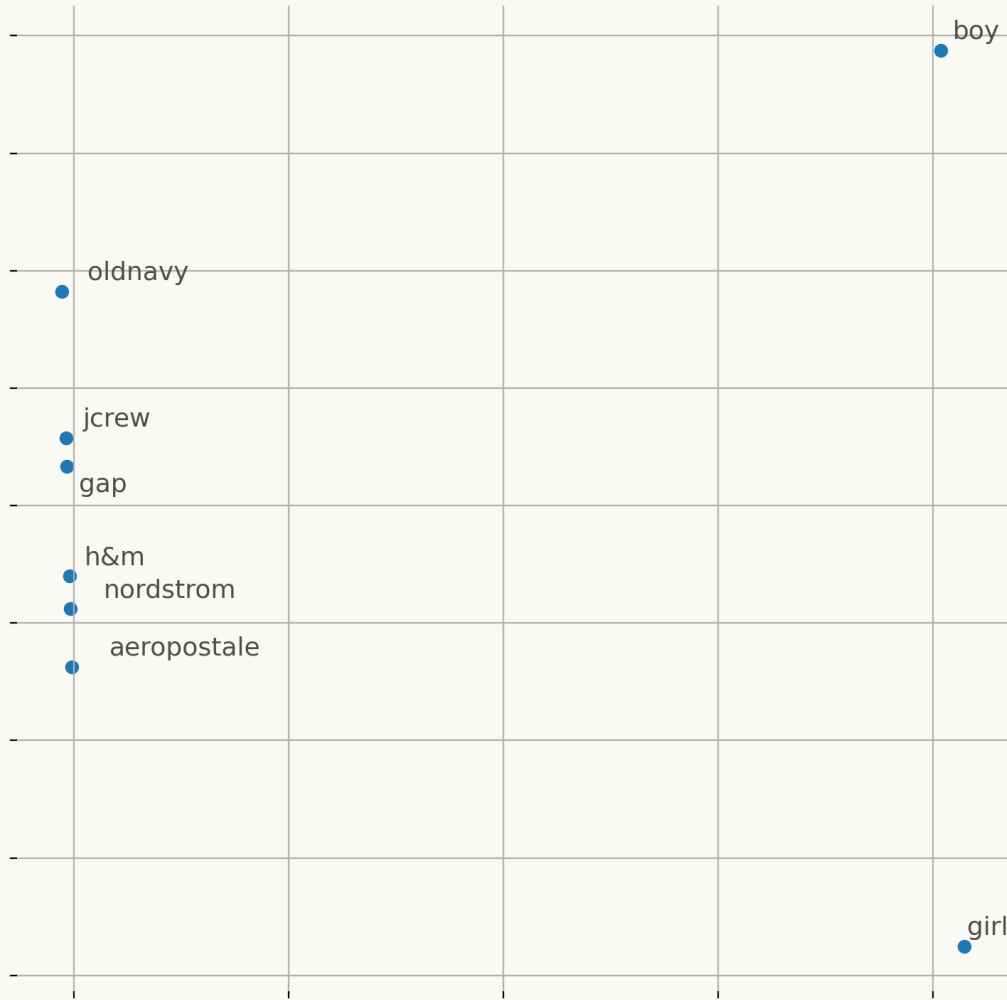
films vs. movies

composers

boy

schoenberg

mozart
beethoven

bach

debussy

girl

languages

languages

clothing

boy

oldnavy

jcrew

gap

h&m

nordstrom

aeropostale

girl

animation
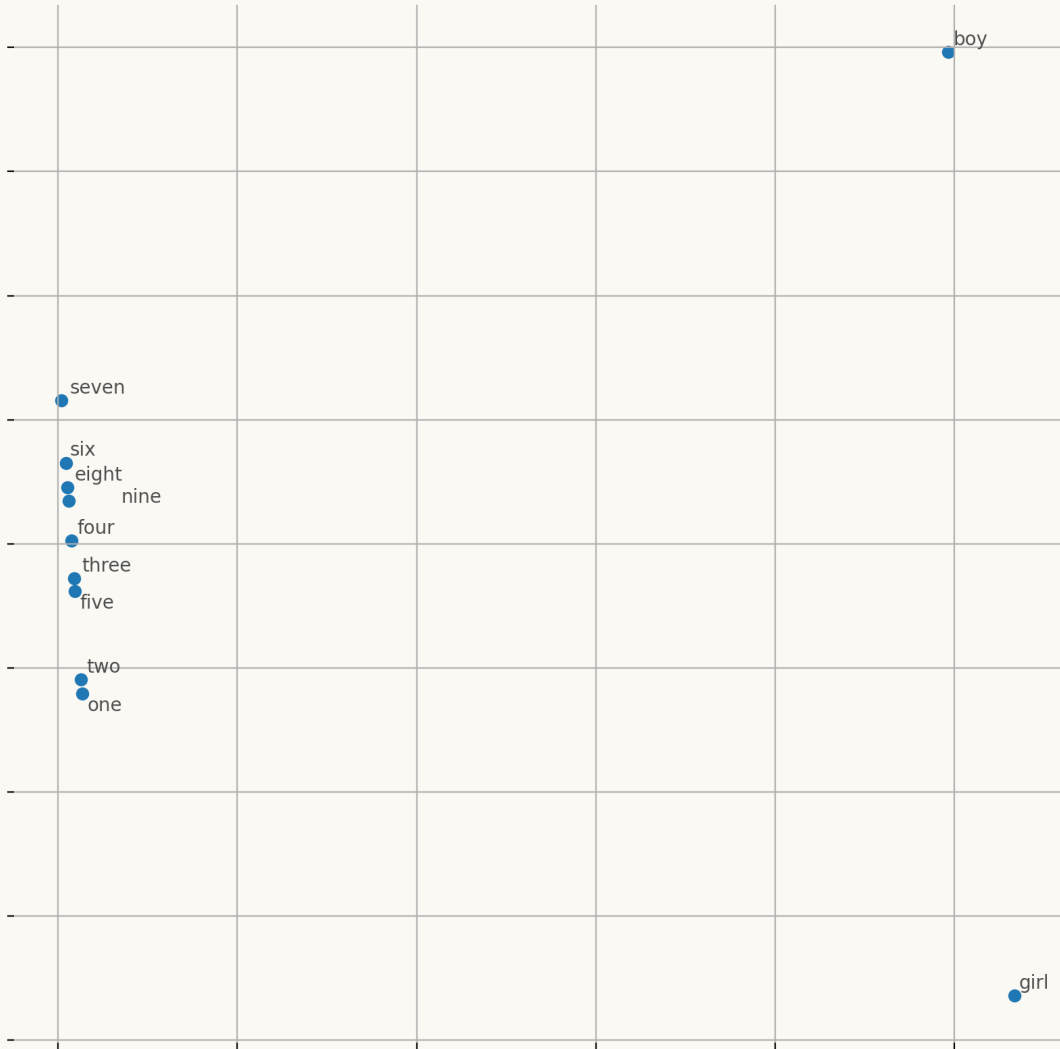
boy

dreamworks

pixar

disney

girl

alcohol

boy

rum

beer
vodka

tequila

wine

girl
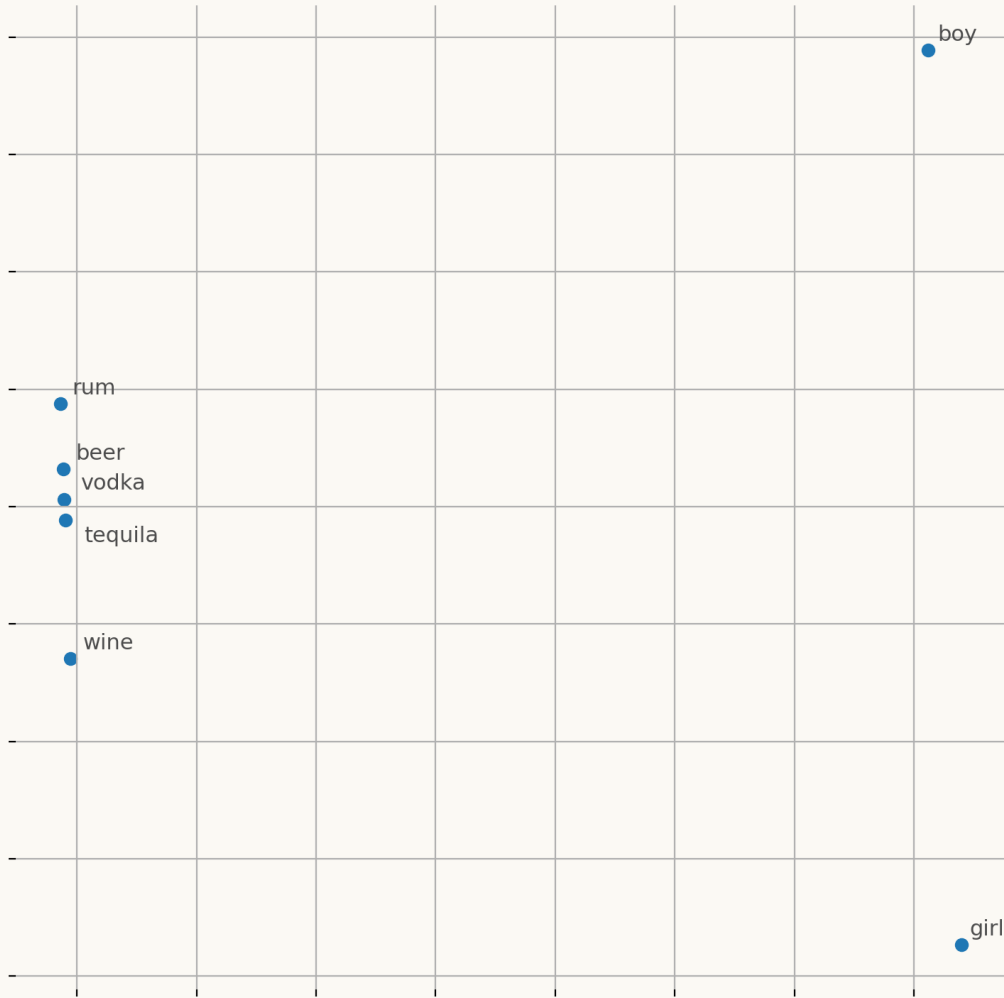
beatles
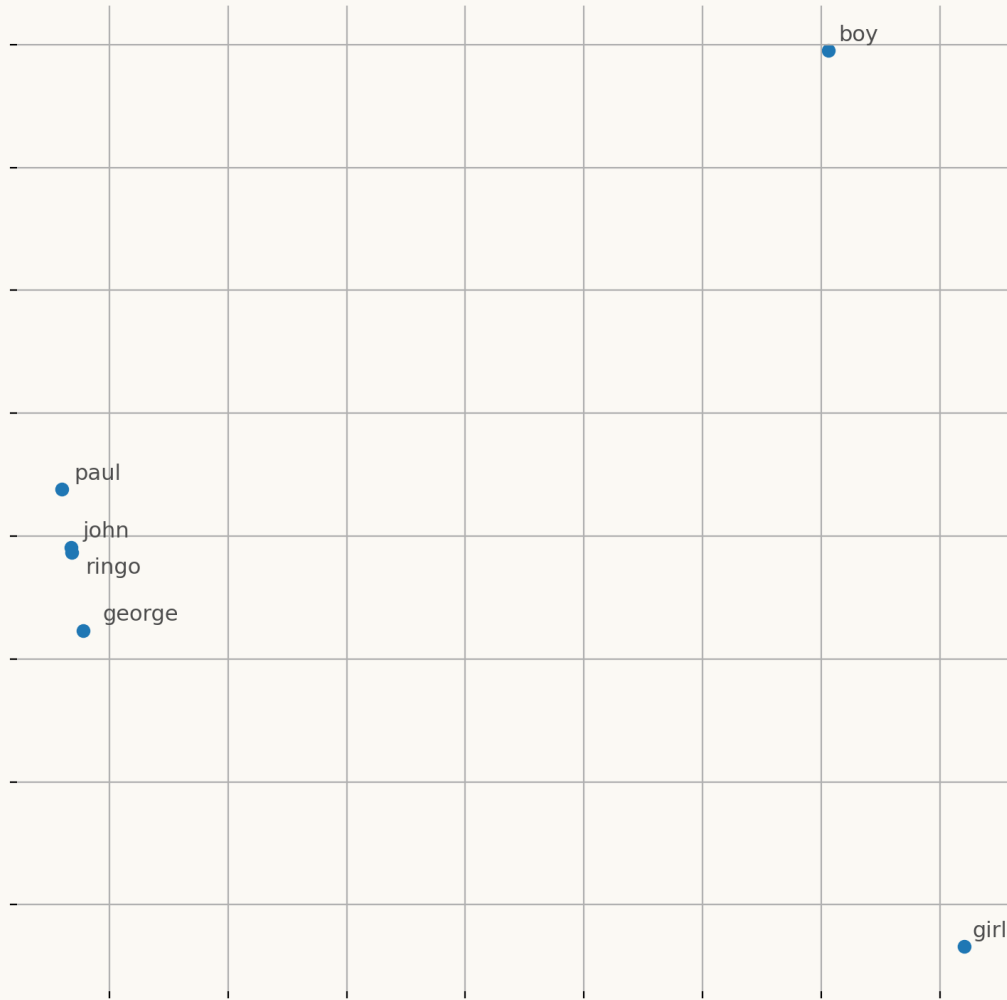
one through nine

vowels

slang

tortilla foods

boy

nacho

burrito

taco
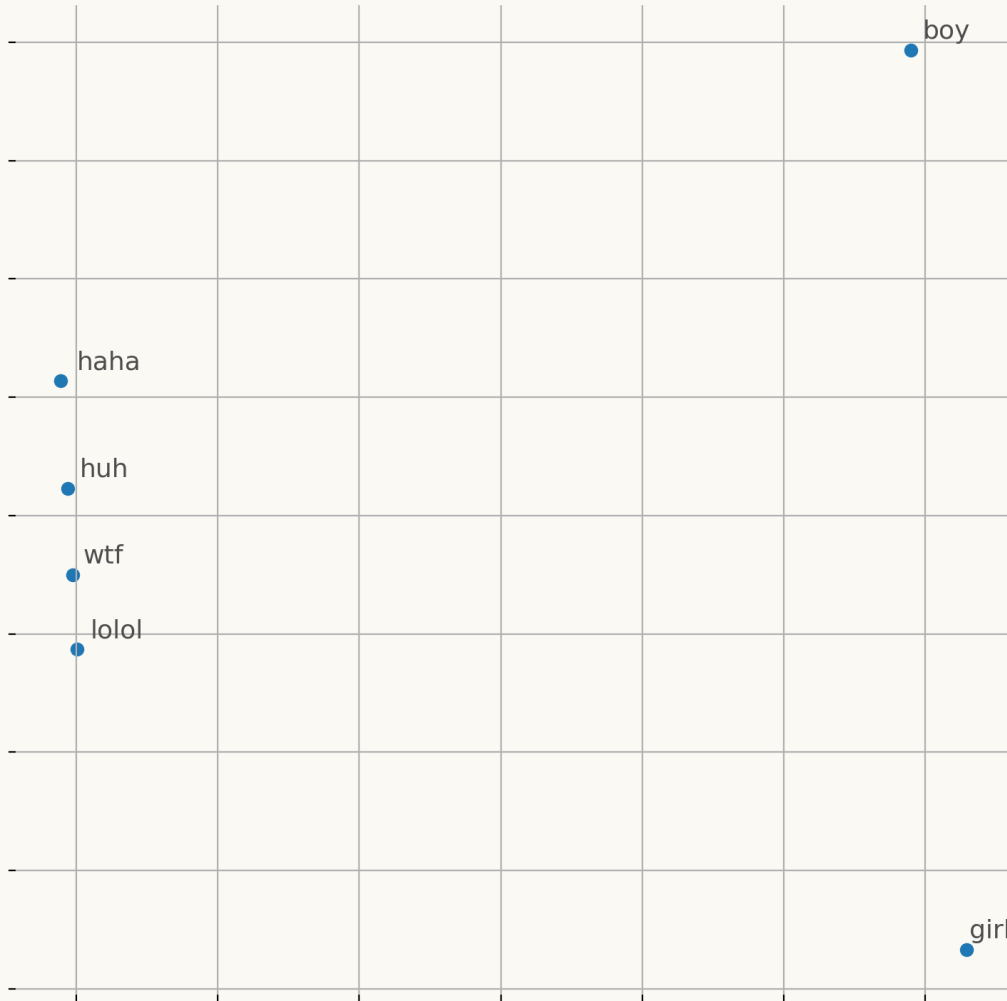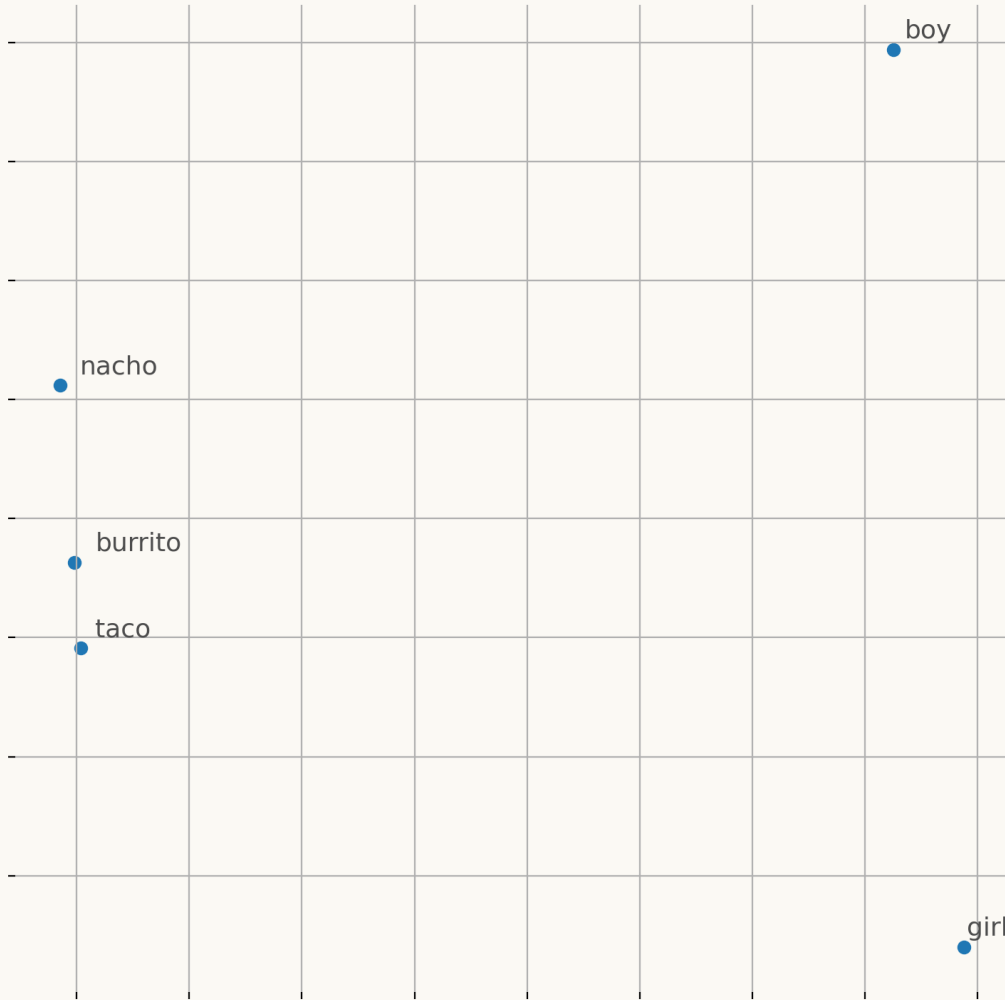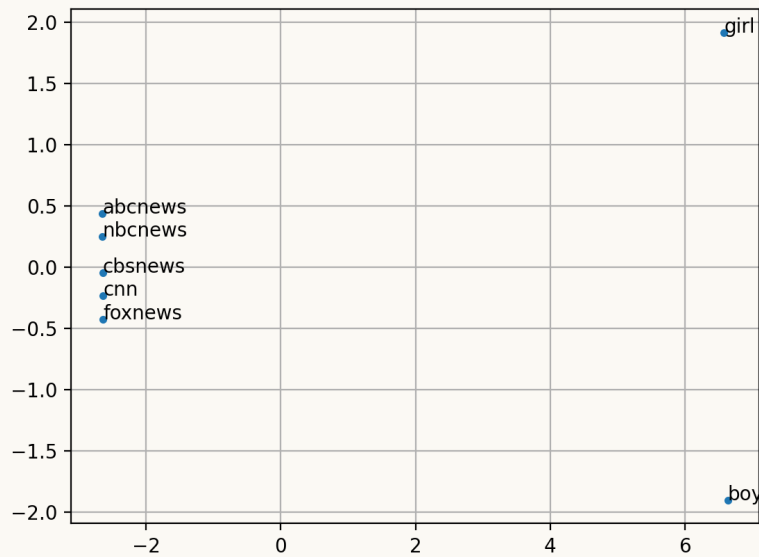
girl
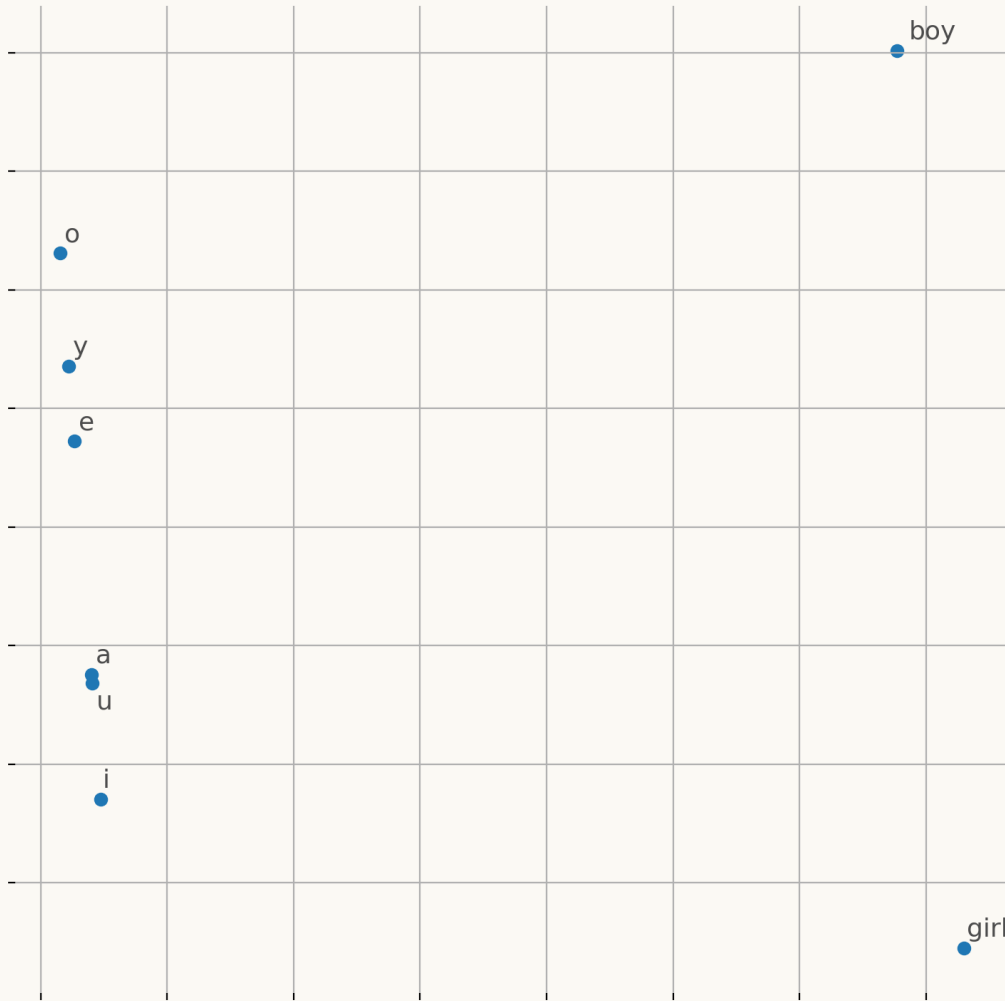
Many of these examples are absurd, and yet still seem to have a certain logic to them. Consider an early graph I generated using a collection of news outlets as input:
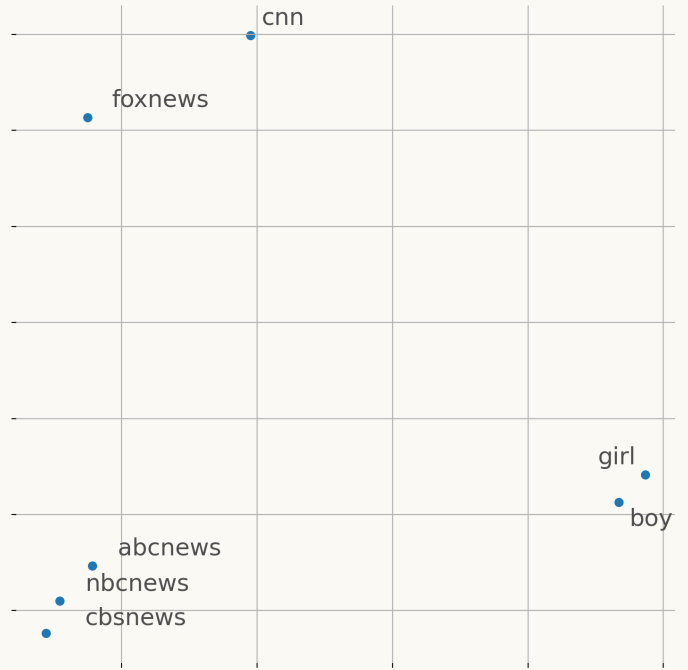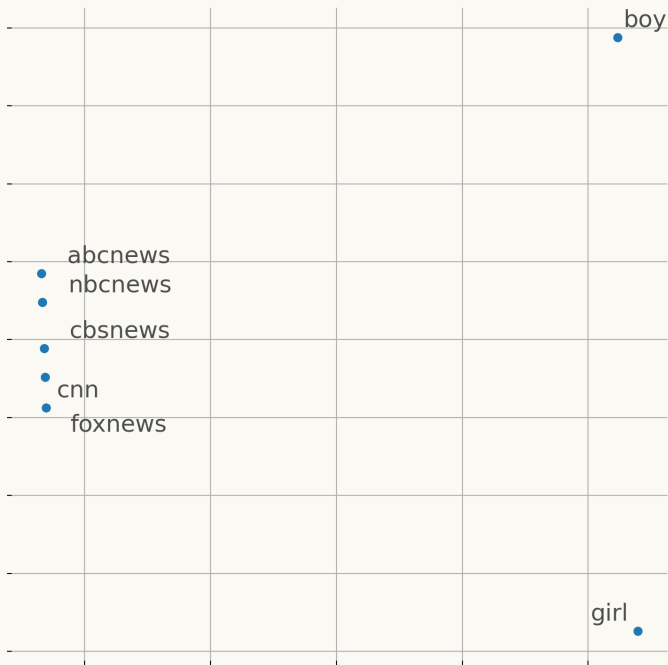

Somehow it seems correct to me that "fox news" is boyish, maybe because men tend to be more conservative. Perhaps this matches your intuition about gender too?

In fact that graph was printed backwards. It was one of my early results which I found fit my expectations, before realizing I had a mathematical error which plotted "boy" where "girl" was supposed to be, and vice versa.

So maybe there isn't that much logic to it after all.

with and without projection

boy

abcnews
nbcnews
cbsnews
cnn
foxnews

girl

cnn

foxnews

girl
boy

abcnews
nbcnews
cbsnews

The code used to generate these poems is available at https://github.com/jminjie/w2v_poetry.