

## NLP and Word Embeddings

## Debiasing word embeddings

## The problem of bias in word embeddings

Man:Woman as King:Queen

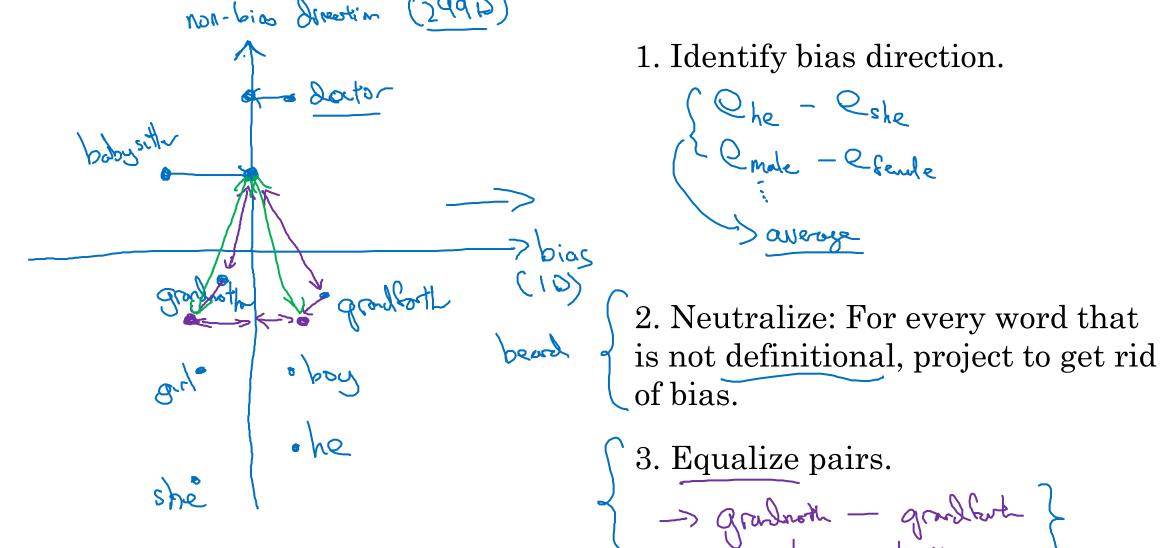
Man:Computer\_Programmer as Woman:Homemaker X

Father:Doctor as Mother: Nurse X

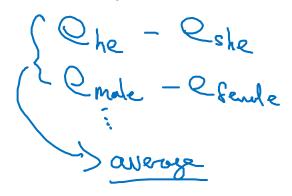
Word embeddings can reflect gender, ethnicity, age, sexual orientation, and other biases of the text used to train the model.



## Addressing bias in word embeddings



1. Identify bias direction.



3. Equalize pairs.

-> gradnoth - gradfart

and boy