[redacted]

Structured Data

Learning with

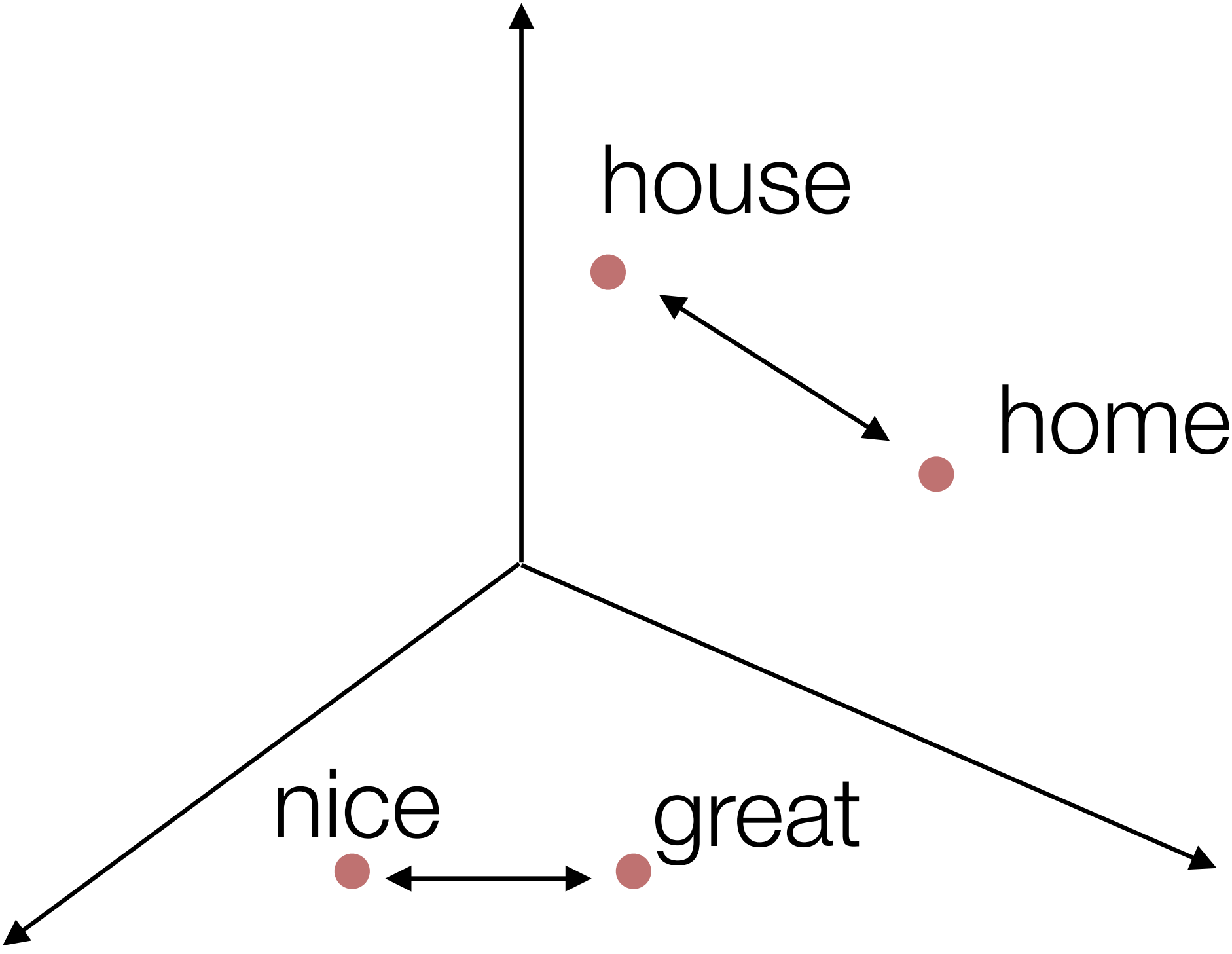
13

- How do we **represent** the objects (computationally)?

- How do we **operate** on them? E.g.:

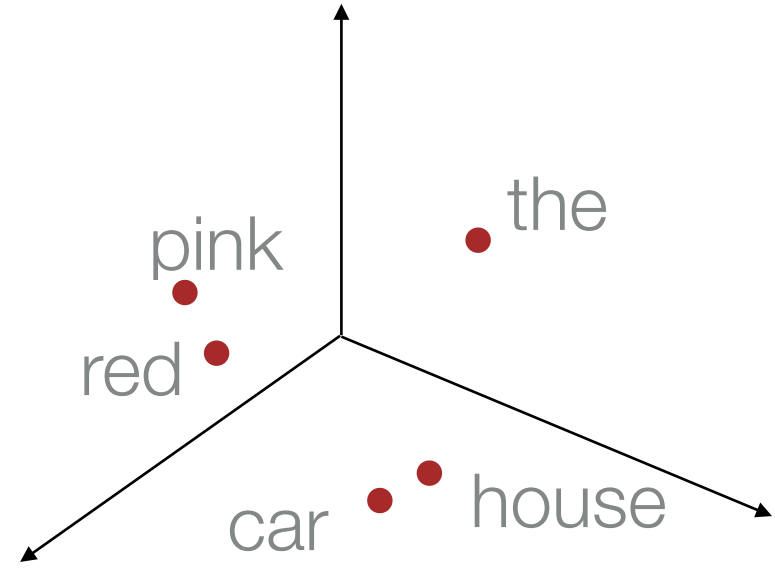
Sentence 1: *... that house is nice ...*

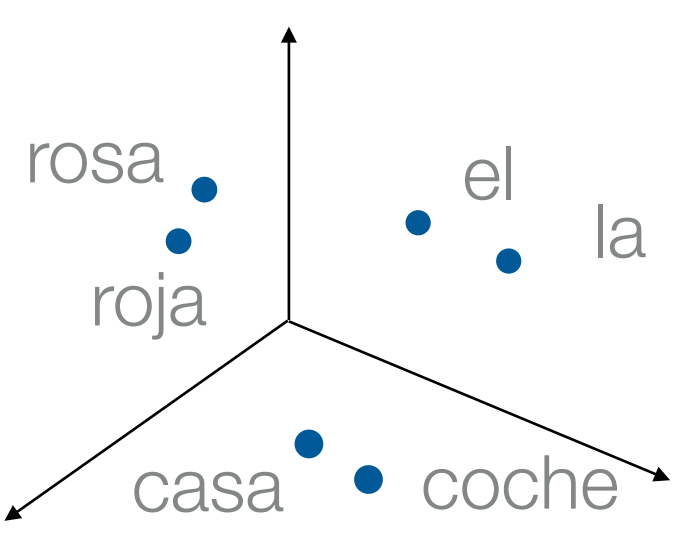
Sentence 2: *... it's great to be home ...*

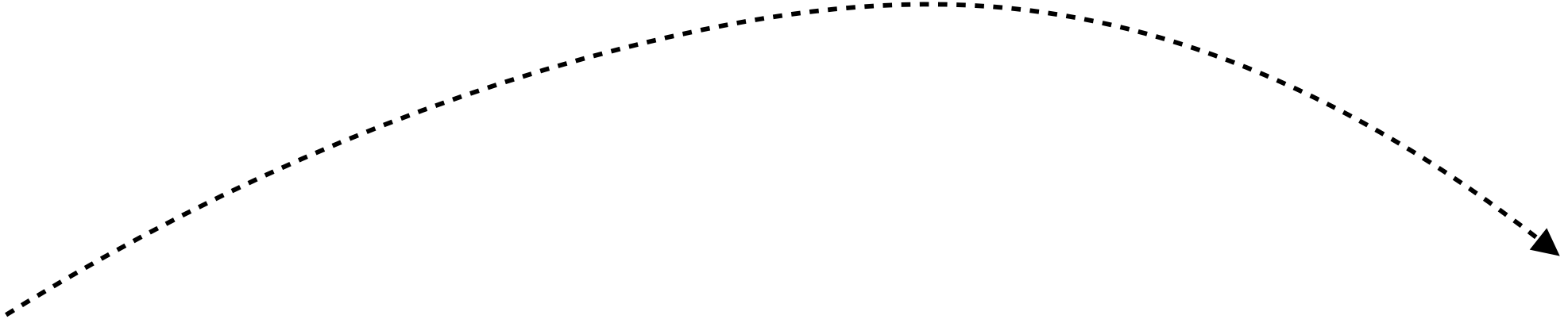

house
home
nice
great

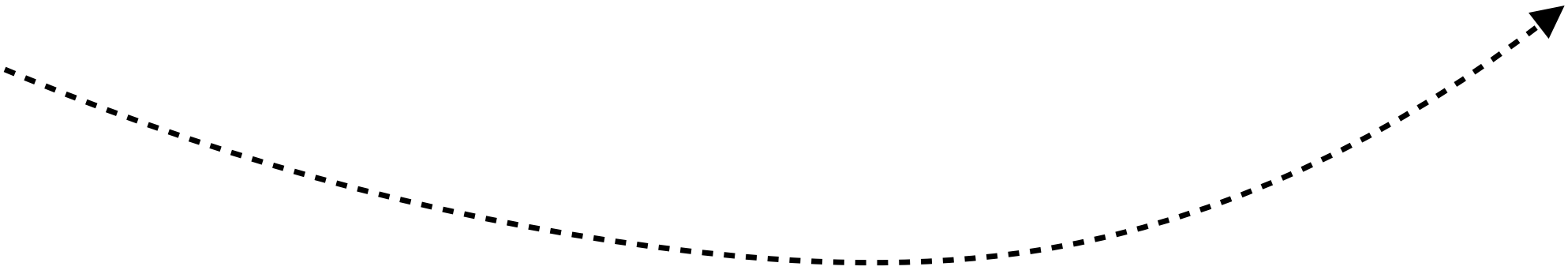
Similarity

Correspondence


pink
the
red
car
house


rosa
el
la
roja
casa
coche





$$\textbf{similarity}(\textbf{sent}_1, \textbf{sent}_2) = 0.8$$

Optimal Transport provides a principled approach to both!


house ⇒ casa


car
coche

Learning with Structured Data

- How do we **represent** the objects (computationally)?

- How do we **operate** on them? E.g.:

Similarity

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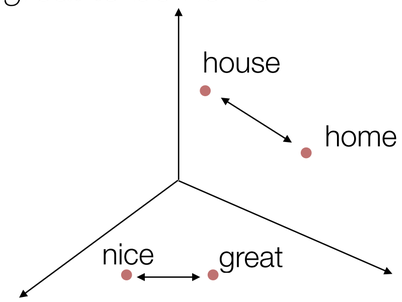
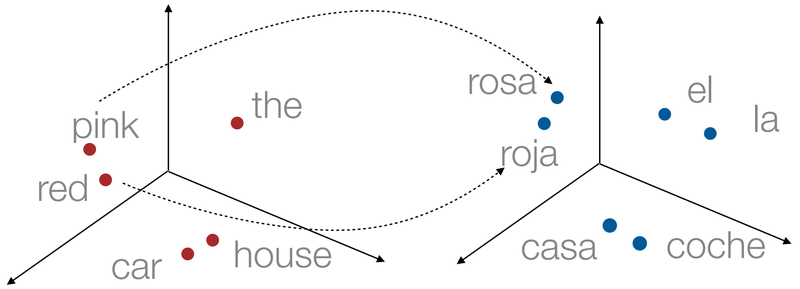


$$\textbf{similarity}(\textbf{sent}_1, \textbf{sent}_2) = 0.8$$

Correspondence



house ⇒ casa

car ⇒ coche

Optimal Transport provides a principled approach to both!

Optimal Transport
in a nutshell