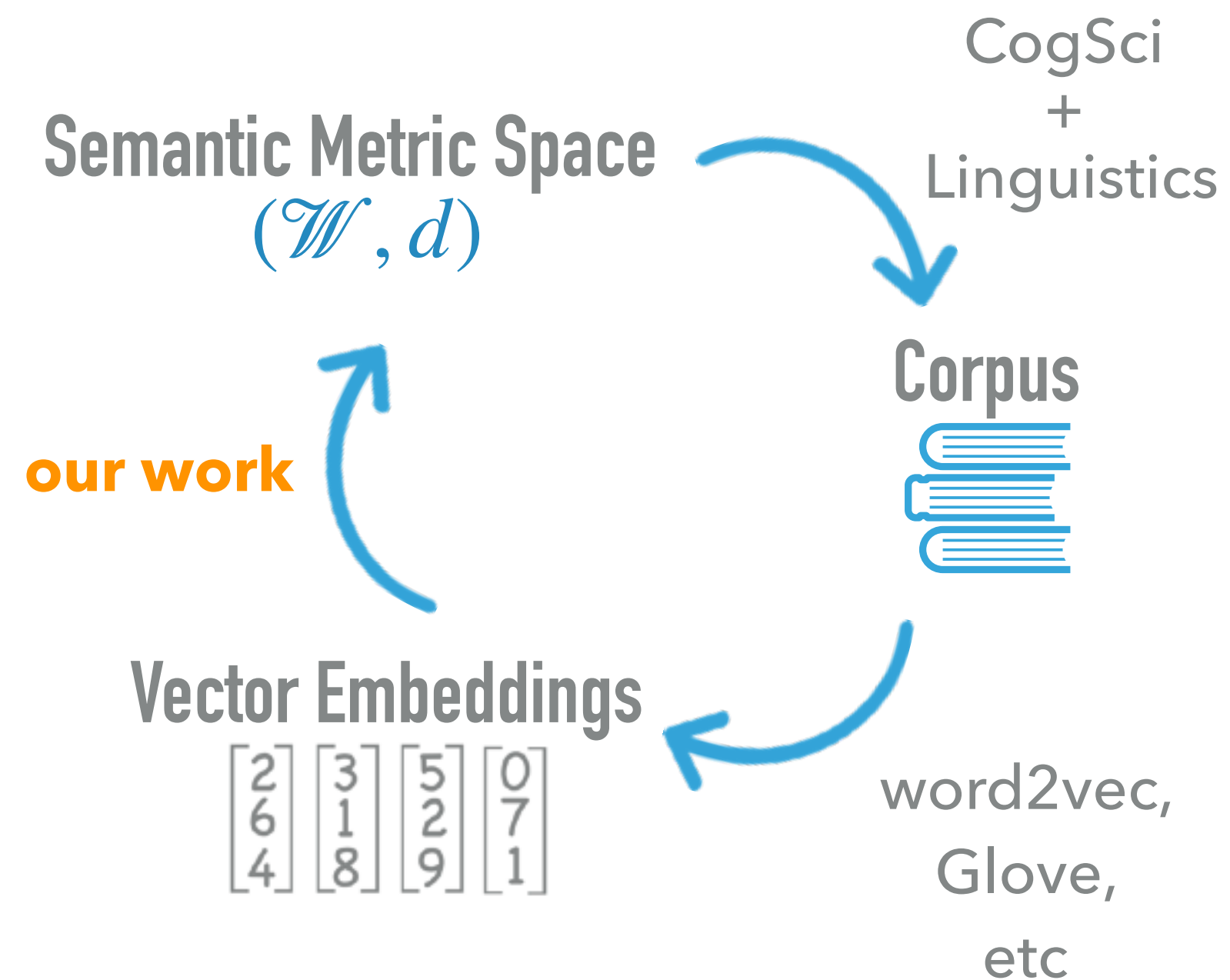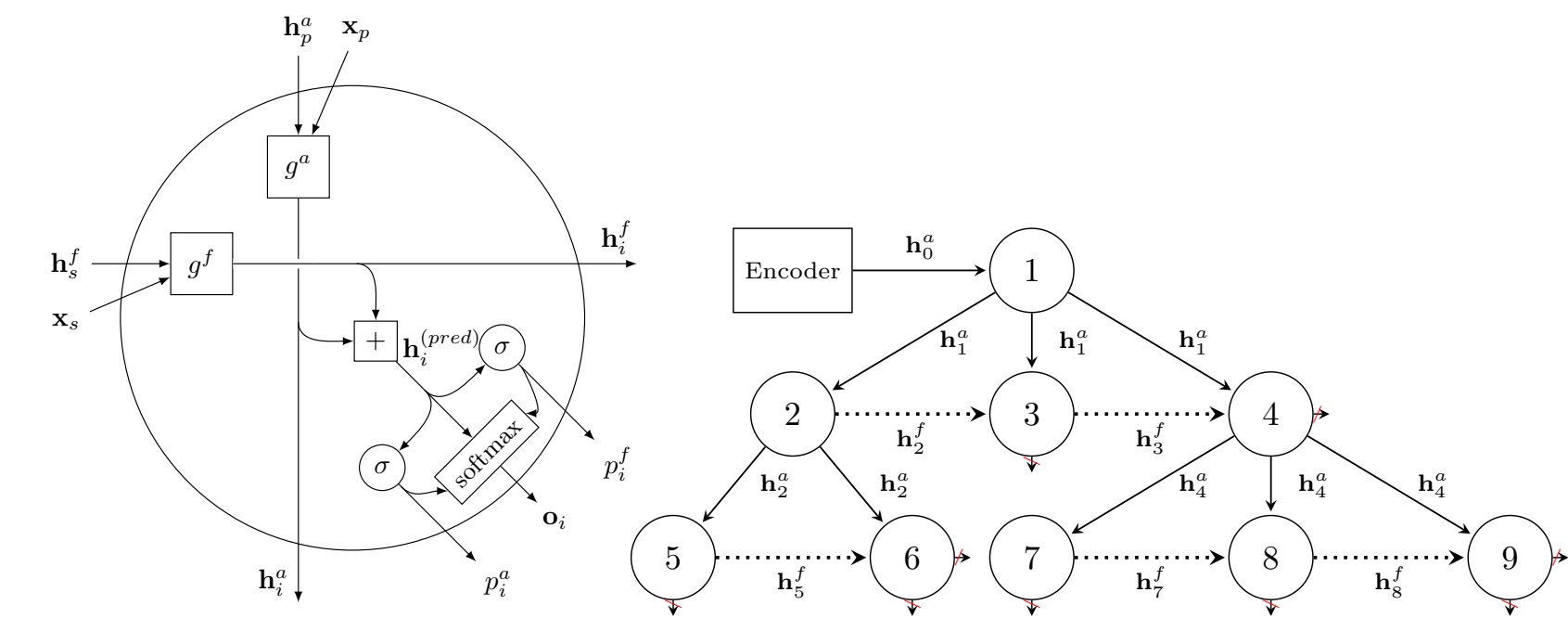# Learning structured Representations
Sentences and Trees
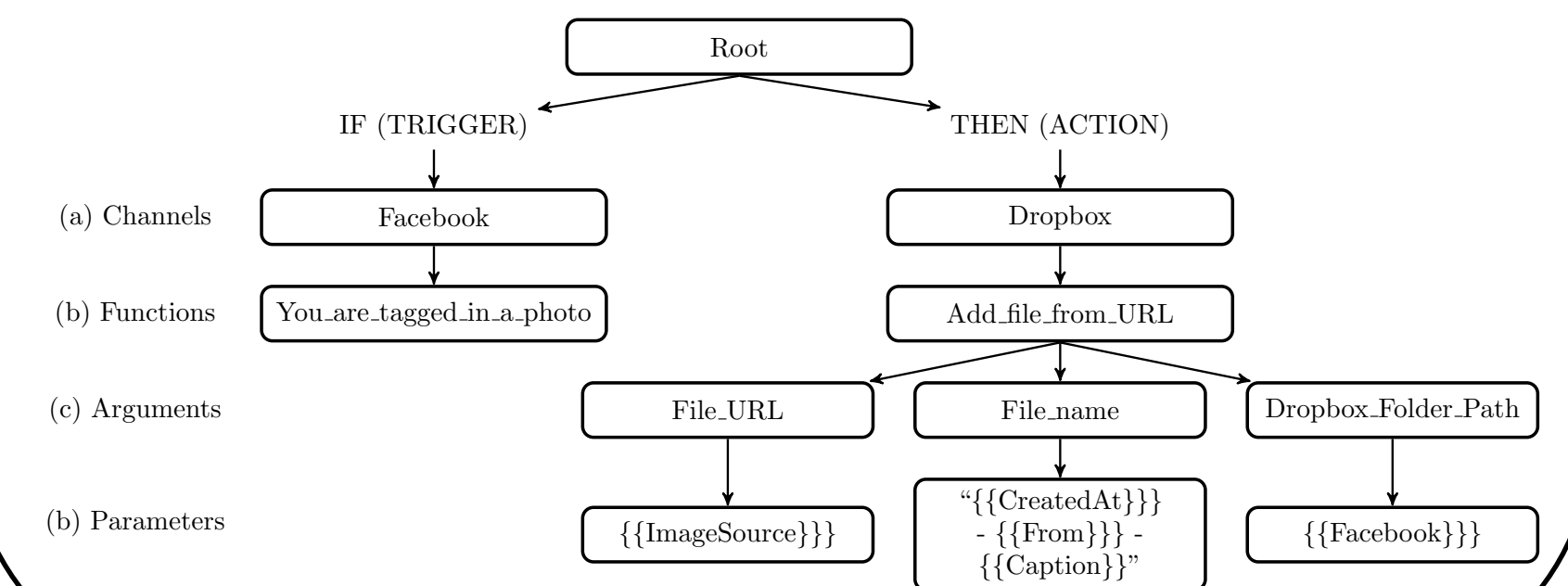

Word Embedding ⇆ Metric Recovery
[Hashimoto, AM, Jaakkola, TACL 2016]

Semantic Metric Space
$(\mathcal{W}, d)$

CogSci
+
Linguistics

Corpus

our work

Vector Embeddings

word2vec,
Glove,
etc

Neural Net Decoders for Trees
[AM, Jaakkola, ICLR 2017]

Recipe   "Save photos you're tagged in on Facebook to Dropbox"

Root

IF (TRIGGER)   THEN (ACTION)

(a) Channels   Facebook   Dropbox

(b) Functions   You_are_tagged_in_a_photo   Add_file_from_URL

(c) Arguments   File_URL   File_name   Dropbox_Folder_Path

(b) Parameters   {{ImageSource}}   "{{CreatedAt}}} - {{From}}} - {{Caption}}"   {{Facebook}}}

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Structured Optimal Transport
a General Framework