

Loss & Damage (Article 3)

December 12, 2017

```
In [1]: from datascience import *
import spacy
% matplotlib inline
```

```
In [2]: !python -m spacy download en
```

Downloading en_core_web_sm-1.2.0/en_core_web_sm-1.2.0.tar.gz

Collecting https://github.com/explosion/spacy-models/releases/download/en_core_web_sm-1.2.0/en_core_web_sm-1.2.0.tar.gz

Downloading https://github.com/explosion/spacy-models/releases/download/en_core_web_sm-1.2.0/en_core_web_sm-1.2.0.tar.gz
100% || 52.2MB 85.7MB/s ta 0:00:011

Requirement already satisfied (use --upgrade to upgrade): en-core-web-sm==1.2.0 from https://github.com/explosion/spacy-models/releases/download/en_core_web_sm-1.2.0/en_core_web_sm-1.2.0.tar.gz
Requirement already satisfied: spacy<2.0.0,>=1.7.0 in /srv/app/venv/lib/python3.6/site-packages (from en-core-web-sm==1.2.0)
Requirement already satisfied: numpy>=1.7 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: murmurhash<0.27,>=0.26 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: cymem<1.32,>=1.30 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: preshed<2.0.0,>=1.0.0 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: thinc<6.6.0,>=6.5.0 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: plac<1.0.0,>=0.9.6 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: pip<10.0.0,>=9.0.0 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: six in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: pathlib in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: ujson>=1.35 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: dill<0.3,>=0.2 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: requests<3.0.0,>=2.13.0 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: regex<2017.12.1,>=2017.4.1 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: ftfy<5.0.0,>=4.4.2 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: wrapt in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: tqdm<5.0.0,>=4.10.0 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: cytoolz<0.9,>=0.8 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: termcolor in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: urllib3<1.23,>=1.21.1 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: certifi>=2017.4.17 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: chardet<3.1.0,>=3.0.2 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: idna<2.7,>=2.5 in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)
Requirement already satisfied: html5lib in /srv/app/venv/lib/python3.6/site-packages (from spacy<2.0.0,>=1.7.0->en-core-web-sm==1.2.0)

Requirement already satisfied: wcwidth in /srv/app/venv/lib/python3.6/site-packages (from ftty)

Requirement already satisfied: toolz>=0.8.0 in /srv/app/venv/lib/python3.6/site-packages (from ftty)

Requirement already satisfied: setuptools>=18.5 in /srv/app/venv/lib/python3.6/site-packages (from ftty)

Requirement already satisfied: webencodings in /srv/app/venv/lib/python3.6/site-packages (from ftty)

Linking successful

```
/srv/app/venv/lib/python3.6/site-packages/en_core_web_sm/en_core_web_sm-1.2.0
--> /srv/app/venv/lib/python3.6/site-packages/spacy/data/en
```

You can now load the model via `spacy.load('en')`.

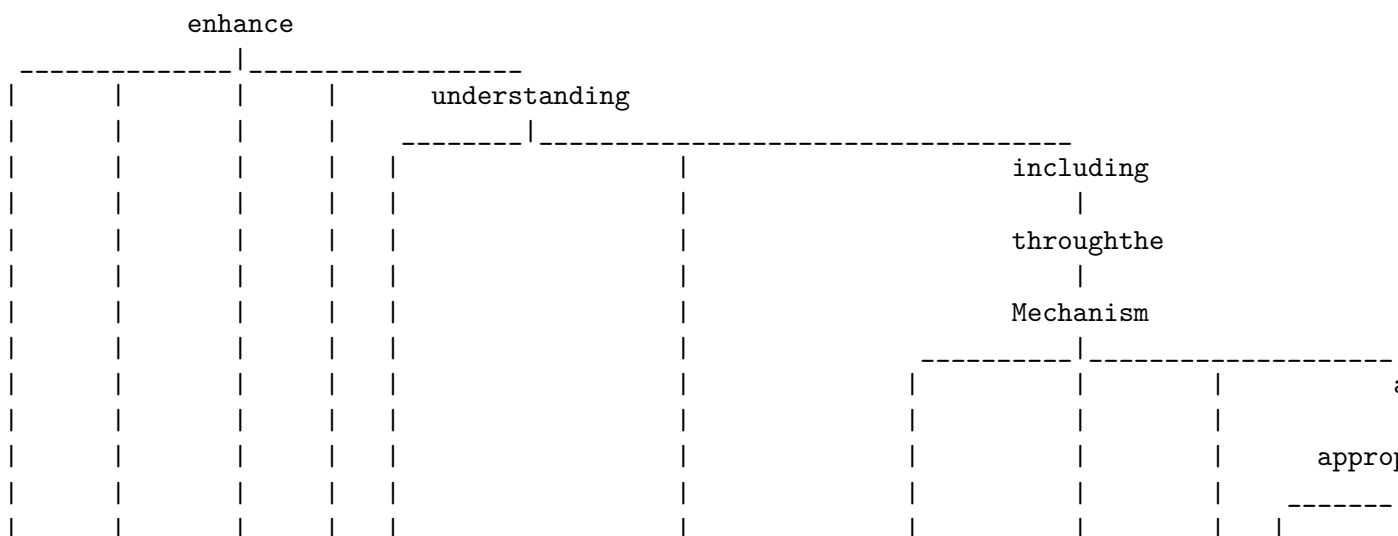
```
In [3]: import spacy
        from nltk import Tree
```

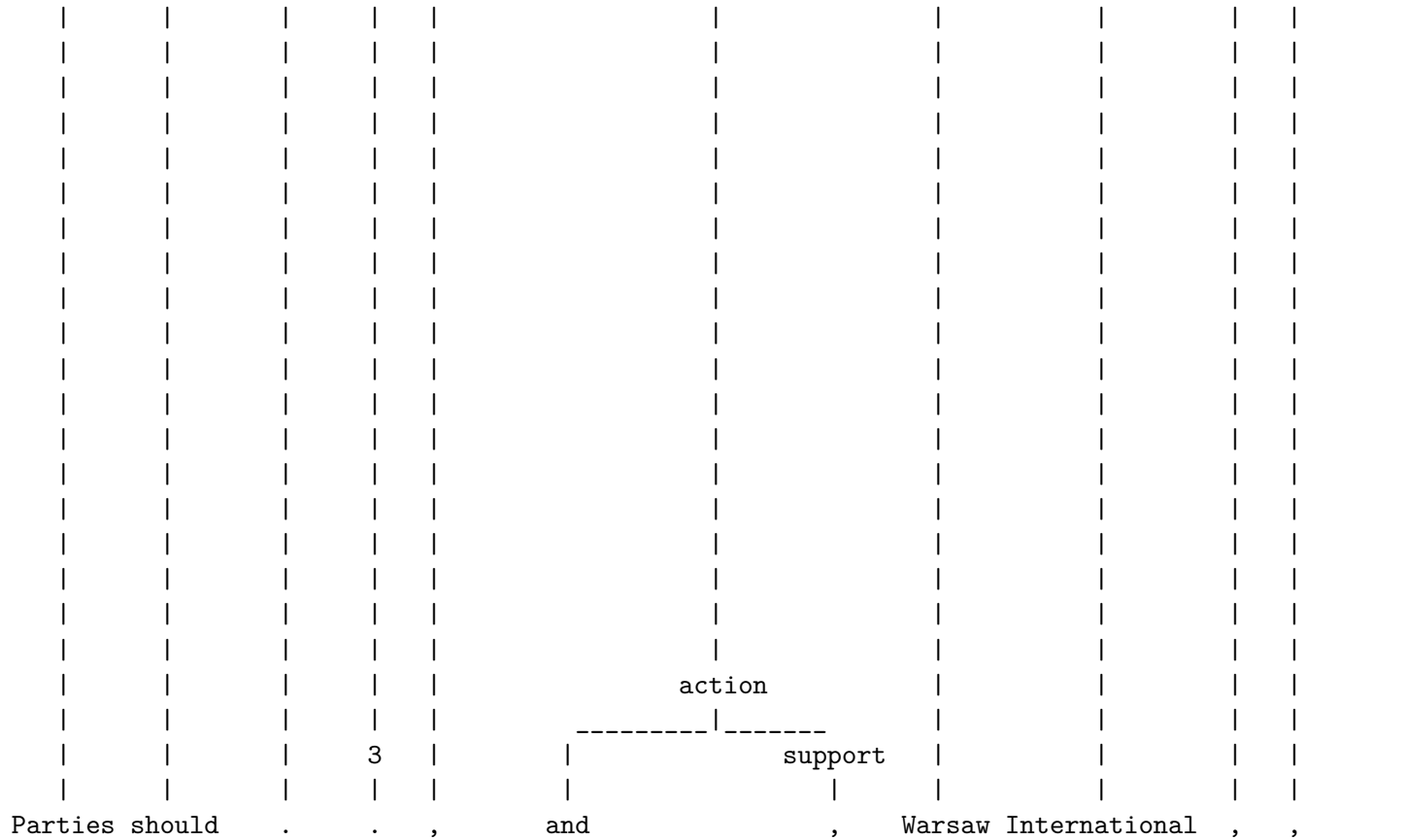
```
In [4]: en_nlp=spacy.load('en')
```

```
doc =en_nlp("""3. Parties should enhance understanding, action and support, including t
the Warsaw International Mechanism, as appropriate, on a cooperative and\
facilitative basis with respect to loss and damage associated with the adverse\
effects of climate change. """)
```

```
def to_nltk_tree(node):
    if node.n_lefts + node.n_rights > 0:
        return Tree(node.orth_, [to_nltk_tree(child) for child in node.children])
    else:
        return node.orth_
```

```
[to_nltk_tree(sent.root).pretty_print() for sent in doc.sents]
```





Out [4]: [None]

```
In [5]: en_nlp=spacy.load('en')
```

```
doc=en_nlp("""3. A climate change displacement coordination facility shall be established to coordinate and facilitate climate change displacement, migration and planned relocation.""")
```

```
def to_nltk_tree(node):
    if node.n_lefts + node.n_rights > 0:
        return Tree(node.orth_, [to_nltk_tree(child) for child in node.children])
    else:
        return node.orth_
```

```
[to_nltk_tree(sent.root).pretty_print() for sent in doc.sents]
```

3
|
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established

shall be . A climate displacement the [Warsaw\Internati] to to climate

```
Out[5]: [None, None]
```