

Diving into French Presidential Discourses

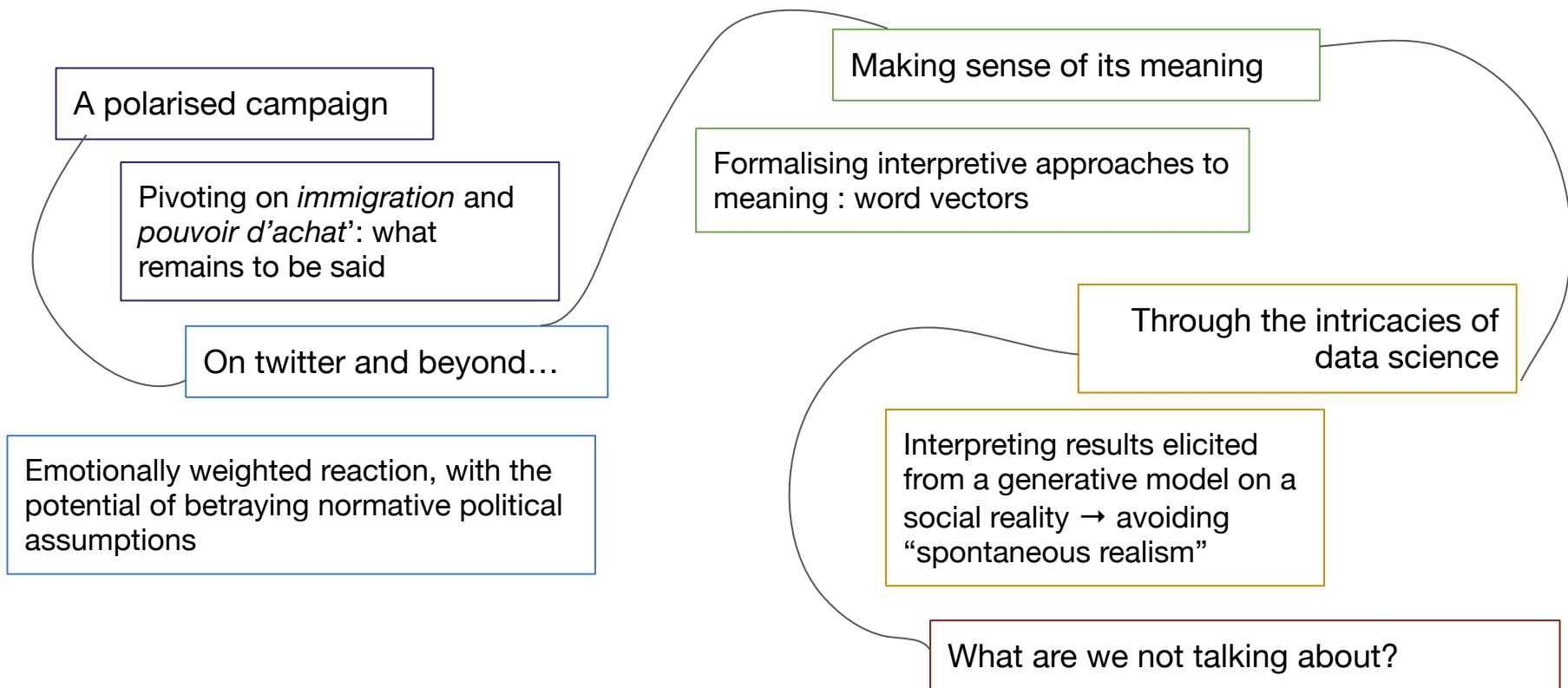
Research for DDPS_Sciences Po X CEU



Giulia Annaliese Paxton // Ryan Hachem // Simone Maria Parazzoli



Background and Context



Methodology

1. Create a **word embedding** model per candidate (7: 3 left, 1 center, 3 right)
 - a. What training data?
 - i. **Twitter activity** (gathered with [minet](#))
 1. Candidate's twitter activity
 2. Candidates affiliates' activity (~15/candidate)
 - ii. **Manifestos** (8–73 pages)
 - b. [Gensim](#) for training + [spaCy](#) for removing stop words
2. Extract the **most common words** for each candidate
3. Analyse the (contextual) meaning of key **shared words in different models**
 - a. Division of key shared words in 5 main categories

Candidates, Models and Input Data (Tweets + Manifestos)

Candidate	Model	Tweets (N)	Tw + Manif (N)	Changed?	Final corpus (N)
Eric Zemmour	model_ez	11.216	11.885	✗	11.885
Marine Le Pen	model_mlp	4.306	4.372	✓	8.678
V. Pécresse	model_vp	2.952	3.250	✓	6.202
E. Macron	model_em	2.736	3.165	✓	5.901
J.L. Mélenchon	model_jlm	5.241	6.193	✗	6.193
Yannick Jadot	model_yj	2.820	3.185	✓	6.005
Anne Hidalgo	model_ah	2.376	2.848	✓	5.224
		31.657			50.088

Main Categories and Analyzed Tokens

- 🇫🇷 **Nation:** ‘france’, ‘etat’, ‘souverainete’, ‘president’, ‘politique’, ‘droit’
- 💰 **Economy:** ‘entreprise’, ‘economie’ ‘emploi’, ‘travail’, ‘taxes’
- 📱 **Digital:** ‘numerique’, ‘donnees’, ‘data’
- 🌐 **Hidden ontologies:** ‘monde’, ‘realite’, ‘verite’, ‘societe’, ‘pouvoir’, ‘avenir’, ‘historie’
- 💥 **Extra:** ‘contre’, ‘faut’, ‘crise’

```
result = model_EZ.wv.most_similar(positive=['france'], topn=20)
print(result)
```

```
[('ans', 0.9968966841697693), ('faut', 0.9963484406471252), ('ete', 0.9955273270606995), ('nous', 0.9943848848342896), ('guerre', 0.9933160543441772), ('politique', 0.9932718276977539), ('faire', 0.9921650886535645), ('ukraine', 0.9899603724479675), ('pays', 0.9891282320022583), ('bien', 0.9881338477134705), ('rien', 0.9871090650558472), ('veux', 0.9870858788490295), ('eta', 0.9865058660507202), ('ils', 0.9848024845123291), ('mettre', 0.9821425080299377), ('veut', 0.9820069670677185), ('fin', 0.9817010164260864), ('peuple', 0.9816468358039856), ('identite', 0.9796350598335266), ('sommes', 0.9794120788574219)]
```

```
result = model_MLP.wv.most_similar(positive=['france'], topn=20)
print(result)
```

```
['puissance', 0.9986474514007568), ('emmanuelmacron', 0.9986413717269897), ('equipe', 0.998569905757904), ('ecole', 0.9985551834106445), ('ukrainien', 0.9985056519508362), ('monde', 0.9984827637672424), ('gaulle', 0.9984500408172607), ('tout', 0.99843829870224), ('jeunesse', 0.9984350800514221), ('peur', 0.9984163641929626), ('general', 0.9984111785888672), ('accueil', 0.9984076619148254), ('présents', 0.9984074831008911), ('role', 0.9984074234962463), ('diplomatique', 0.9984018802642822), ('gauche', 0.9984002709388733), ('sauver', 0.998397946357727), ('vision', 0.9983939528465271), ('culture', 0.9983904957771301), ('écouter', 0.9983852505683899)]
```



'france'

```
result = model_EM.wv.most_similar(positive=['france'], topn=20)
print(result)
```

```
[('nucléaire', 0.9997913241386414), ('enjeux', 0.999771773815155), ('secteur', 0.999767005443573), ('industrielle', 0.999755859375), ('cyber', 0.999752938747406), ('sécurité', 0.9997526407241821), ('moyens', 0.9997504353523254), ('attractivité', 0.9997501969337463), ('territoire', 0.999750018119812), ('nos', 0.9997497797012329), ('faut', 0.9997457265853882), ('services', 0.9997401833534241), ('avenir', 0.9997382760047913), ('nation', 0.9997369647026062), ('investissements', 0.9997363090515137), ('production', 0.9997355341911316), ('enjeu', 0.9997354745864868), ('afrique', 0.9997349381446838), ('développement', 0.9997326731681824), ('sens', 0.999732255935669)]
```

```
result = model_JLM.wv.most_similar(positive=['france'], topn=20)
print(result)
```

```
['puissance', 0.999172031879425), ('diplomatie', 0.9991270899772644), ('russe', 0.9990960955619812), ('otan', 0.9990941286087036), ('armes', 0.9990940093994141), ('diplomatique', 0.999085009098053), ('conflit', 0.999082624912262), ('états', 0.999058723449707), ('usa', 0.9990032315254211), ('feu', 0.9989833831787109), ('moment', 0.9989789724349976), ('ukrainien', 0.9989706873893738), ('économiques', 0.9989697933197021), ('solidarité', 0.9989593625068665), ('cessez', 0.9989516735076904), ('indépendance', 0.9989377856254578), ('invasion', 0.9989374876022339), ('cours', 0.9989345669746399), ('escalade', 0.9989300966262817), ('position', 0.9989277720451355)]
```

'Nation'

'souverainete'



```
result = model_MLP.wv.most_similar(positive=['souverainete'], topn=20)
print(result)
```

Le Pen

```
[('frontieres', 0.9996327757835388), ('armes', 0.9995909929275513), ('demande', 0.9995408058166504), ('nucleaire', 0.9995235800743103), ('internationale', 0.9995056390762329), ('defense', 0.9995044469833374), ('retrouver', 0.9995043277740479), ('justice', 0.9994917511940002), ('commission', 0.999477744102478), ('islamiste', 0.9994723200798035), ('etrange', 0.9994699358940125), ('nationale', 0.9994664788246155), ('migrants', 0.999457765464783), ('veritable', 0.9994551539421082), ('alimentaire', 0.9994549751281738), ('droits', 0.9994504451751709), ('des', 0.9994477033615112), ('comme', 0.9994423985481262), ('absolument', 0.9994380474090576), ('crise', 0.9994309544563293)]
```

```
result = model_VP.wv.most_similar(positive=['souverainete'], topn=20)
print(result)
```

Pécresse

```
[('crise', 0.9997391104698181), ('liberte', 0.9997377991676331), ('defense', 0.9997357130050659), ('jour', 0.999732494354248), ('fois', 0.9997308254241943), ('valeurs', 0.999718189239502), ('developpement', 0.9997180700302124), ('cette', 0.9997168183326721), ('annee', 0.9997127056121826), ('independance', 0.999708890914917), ('urgence', 0.9997076392173767), ('economique', 0.999704897403717), ('territoire', 0.9996986389160156), ('ville', 0.9996982216835022), ('grands', 0.9996957182884216), ('mieux', 0.999694287776947), ('notre', 0.9996938705444336), ('sociale', 0.9996931552886963), ('donner', 0.9996923804283142), ('vivre', 0.9996922016143799)]
```

```
result = model_EM.wv.most_similar(positive=['souverainete'], topn=20)
print(result)
```

Macron

```
[('europeens', 0.9997091293334961), ('securite', 0.9997056126594543), ('pfue', 0.9996964931488037), ('numerique', 0.9996930956840515), ('cadre', 0.9996830224990845), ('nucleaire', 0.9996762871742249), ('energetique', 0.999671995639801), ('production', 0.9996647238731384), ('elle', 0.9996594190597534), ('passe', 0.999657392501831), ('avenir', 0.9996551871299744), ('sante', 0.9996546506881714), ('afrique', 0.9996504187583923), ('numeriques', 0.9996491074562073), ('nouvelle', 0.999647855758667), ('enjeux', 0.9996463060379028), ('secteur', 0.9996429681777954), ('developpement', 0.9996415972709656), ('innovation', 0.999640)]
```

```
result = model_JLM.wv.most_similar(positive=['souverainete'], topn=20)
print(result)
```

Mélenchon

```
[('protection', 0.9997799396514893), ('francaise', 0.999778534889221), ('salaries', 0.9997751712799072), ('solidarite', 0.9997662305831909), ('secteur', 0.9997580051422119), ('probleme', 0.9997574687004089), ('humanite', 0.999756932258606), ('internationale', 0.9997496008872986), ('pourtant', 0.9997488856315613), ('defense', 0.9997480511665344), ('soient', 0.9997456073760986), ('modele', 0.999743640422821), ('sante', 0.9997418522834778), ('victimes', 0.9997416138648987), ('demande', 0.9997387528419495), ('initiative', 0.9997360110282898), ('accord', 0.9997350573539734), ('politiques', 0.9997341632843018), ('etats', 0.999732255935669), ('agit', 0.9997307062149048)]
```

```
result = model_MLP.wv.most_similar(positive=['entreprise'], topn=20)
print(result)
```

Le Pen

```
[('quartiers', 0.9996625185012817), ('territoire', 0.9996503591537476), ('islamiste', 0.9996498227119446), ('jusqu', 0.9996266961097717), ('promesse', 0.9996204972267151), ('publics', 0.9996196627616882), ('internationale', 0.9996136426925659), ('ici', 0.9996119737625122), ('population', 0.999607264995575), ('davantage', 0.9996004104614258), ('echange', 0.9995981454849243), ('grande', 0.9995908737182617), ('demande', 0.9995885491371155), ('algerie', 0.9995872974395752), ('manque', 0.9995863437652588), ('ville', 0.999586284160614), ('habitants', 0.9995810985565186), ('notre', 0.9995806217193604), ('veritable', 0.999577935103455), ('villes', 0.9995770454406738)]
```

```
result = model_MLP.wv.most_similar(positive=['emploi'], topn=20)
print(result)
```

Le Pen

```
[('social', 0.9996276497840881), ('libertes', 0.9996218681335449), ('chomage', 0.9996165037155151), ('entreprises', 0.9996074438095093), ('economie', 0.999603271484375), ('impots', 0.9995865821838379), ('sante', 0.9995675683021545), ('immediatement', 0.9995618462562561), ('economique', 0.9995347261428833), ('proteger', 0.9995298385620117), ('problemes', 0.9995264410972595), ('mon', 0.9994949698448181), ('migratoire', 0.9994938969612122), ('economies', 0.9994840025901794), ('question', 0.9994803667068481), ('plein', 0.9994789958000183), ('gouvernement', 0.9994766116142273), ('vivre', 0.9994686245918274), ('augmentation', 0.9994624853134155), ('arreter', 0.9994509220123291)]
```

```
result = model_EM.wv.most_similar(positive=['entreprise'], topn=20)
print(result)
```

Macron

```
[('enfants', 0.9998403191566467), ('secteur', 0.9998317360877991), ('sante', 0.9998293519020081), ('mois', 0.999823272228241), ('rapport', 0.9998229146003723), ('mouvem', 0.9998204112052917), ('voir', 0.999819278717041), ('eleves', 0.9998190999031067), ('compte', 0.9998181462287903), ('loi', 0.9998160004615784), ('securite', 0.9998155832290649), ('des', 0.9998141527175903), ('ecole', 0.9998139142990112), ('les', 0.9998137354850769), ('enjeux', 0.9998118877410889), ('personnes', 0.9998109936714172), ('niveau', 0.9998106360435486), ('fin', 0.9998093843460083), ('assembleenat', 0.9998088479042053), ('jusqu', 0.9998074173)]
```

```
result = model_JLM.wv.most_similar(positive=['emploi'], topn=20)
print(result)
```

Mélenchon

```
[('emplois', 0.9996883273124695), ('mieux', 0.9996870160102844), ('creer', 0.9996597170829773), ('chomage', 0.9996309280395508), ('acces', 0.9996131658554077), ('payer', 0.99961256980896), ('projet', 0.9996085166931152), ('hopital', 0.9996044039726257), ('travailleurs', 0.9995984435081482), ('demande', 0.9995964765548706), ('vie', 0.9995947480201721), ('baisse', 0.9995883107185364), ('niveau', 0.9995862245559692), ('vivre', 0.9995819926261902), ('energie', 0.9995816349983215), ('sante', 0.9995765089988708), ('besoin', 0.9995753765106201), ('protection', 0.9995700120925903), ('augmente', 0.9995686411857605), ('dividendes', 0.9995641112327576)]
```

Numerique, 'numerique'

```
result = model_VP.wv.most_similar(positive=['numerique'], topn=20)
print(result)
```

Pécresse

```
[('victoire', 0.9996539354324341), ('point', 0.9996511936187744), ('jean', 0.9996286630630493), ('grand', 0.999627947807312), ('majorite', 0.999627947807312), ('debut', 0.9996195435523987), ('discours', 0.9996183514595032), ('droit', 0.9996171593666077), ('occasion', 0.9996039271354675), ('meeting', 0.9995990991592407), ('recherche', 0.9995974898338318), ('conference', 0.99950277671814), ('chose', 0.9995893239974976), ('personnes', 0.999586284160614), ('avenir', 0.9995855093002319), ('chjacob', 0.9995845556259155), ('grande', 0.9995843172073364), ('equipe', 0.9995837211608887), ('dans', 0.9995800852775574), ('homme', 0.9995777606964111)]
```

```
result = model_EM.wv.most_similar(positive=['numerique'], topn=20)
print(result)
```

Macron

```
[('souverainete', 0.9996930956840515), ('passe', 0.9996706247329712), ('numeriques', 0.9996668100357056), ('renforcer', 0.9996662735939026), ('innovation', 0.9996656179428101), ('sante', 0.9996638298034668), ('projets', 0.999662204780579), ('europeens', 0.9996615648269653), ('cadre', 0.9996493458747864), ('avenir', 0.9996483325958252), ('grace', 0.9996421933174133), ('coeur', 0.9996394515037537), ('afrique', 0.9996333122253418), ('securite', 0.9996324181556702), ('fonds', 0.9996322989463806), ('fois', 0.9996271133422852), ('service', 0.999626874923706), ('une', 0.999626636505127), ('services', 0.9996262788772583), ('territoires', 0.9996257424354553)]
```

```
result = model_JLM.wv.most_similar(positive=['numerique'], topn=20)
print(result)
```

Mélenchon

```
[('politiques', 0.9995570778846741), ('animaux', 0.9995564818382263), ('espace', 0.9995442628860474), ('victimes', 0.999542474467041), ('citoyenne', 0.9995418787002563), ('humains', 0.9995274543762207), ('societe', 0.9995273351669312), ('depuis', 0.9995256662368774), ('enfants', 0.9995248913764954), ('histoire', 0.9995242357254028), ('mise', 0.9995134472846985), ('grands', 0.9995129108428955), ('homme', 0.999512791633606), ('appelle', 0.9995036721229553), ('ministre', 0.999501645565033), ('mis', 0.9994998574256897), ('agit', 0.9994981288909912), ('mondiale', 0.999492347240448), ('groupe', 0.9994916319847107), ('agricole', 0.9994910359382629)]
```

Hidden ontologies, 'monde'

```
result = model_MLP.wv.most_similar(positive=['monde'], topn=20)
print(result)
```

Le Pen

```
[('grands', 0.9996035695075989), ('societe', 0.9995974898338318), ('enfants', 0.9995726943016052), ('ville', 0.999569892883308), ('peur', 0.9995675683021545), ('paris', 0.9995666742324829), ('raison', 0.9995650053024292), ('ecole', 0.9995577931404114), ('notre', 0.9995546936988831), ('signe', 0.9995545148849487), ('ideologie', 0.9995487928390503), ('quand', 0.9995437264442444), ('jeunes', 0.9995432496070862), ('faux', 0.999539732930444), ('politiques', 0.9995360374450684), ('proximes', 0.9995337724685669), ('general', 0.9995328187942505), ('histoire', 0.999526858329773), ('laxisme', 0.9995236396789551), ('moyens', 0.9995235800743103)]
```

```
result = model_VP.wv.most_similar(positive=['monde'], topn=20)
print(result)
```

Pécresse

```
[('crise', 0.999760627746582), ('economique', 0.9997556209564209), ('cette', 0.9997518658638), ('liberte', 0.999746561050415), ('territoire', 0.9997418522834778), ('annee', 0.9997411966323853), ('voix', 0.9997268319129944), ('culture', 0.9997263550758362), ('moyens', 0.9997214078903198), ('urgence', 0.9997161626815796), ('defense', 0.999712347984314), ('entreprises', 0.9997110366821289), ('annees', 0.9997091889381409), ('politiques', 0.9997085928916931), ('place', 0.9997050762176514), ('grands', 0.9997050166130066), ('notre', 0.9997045397758484), ('villes', 0.9997037053108215), ('ici', 0.9997025728225708), ('moment', 0.999701738357544)]
```

```
result = model_EM.wv.most_similar(positive=['monde'], topn=20)
print(result)
```

Macron

```
[('enfants', 0.9998213052749634), ('secteur', 0.9998169541358948), ('ensemble', 0.9998162388801575), ('avenir', 0.9998125433921814), ('jusqu', 0.9998112916946411), ('service', 0.9998070597648621), ('ecole', 0.9998029470443726), ('taut', 0.9997959733009338), ('economie', 0.9997945427894592), ('droit', 0.9997934699058533), ('des', 0.999792754650116), ('grande', 0.9997912645339966), ('entreprise', 0.999790370464325), ('societe', 0.9997899532318115), ('compte', 0.9997891783714294), ('securite', 0.9997884035110474), ('rapport', 0.9997883439064026), ('porte', 0.9997879862785339), ('personnes', 0.9997876286506653), ('fois', 0.9997867941856384)]
```

```
result = model_JLM.wv.most_similar(positive=['monde'], topn=20)
print(result)
```

Mélenchon

```
[('force', 0.9994516372680664), ('participer', 0.9994468092918396), ('mobilisation', 0.9994410276412964), ('beaucoup', 0.999363362789154), ('quelle', 0.9993534088134766), ('enorme', 0.9993492960929871), ('merci', 0.9992944598197937), ('ensemble', 0.9992883205413818), ('journee', 0.9992868304252625), ('bravo', 0.999231219291687), ('demonstration', 0.9992154240608215), ('voir', 0.9992150068283081), ('ville', 0.9991910457611084), ('mouvement', 0.999156653881073), ('eme', 0.9991555213928223), ('rue', 0.9991541504859924), ('prise', 0.9991427659988403), ('une', 0.9991422295570374), ('plaisir', 0.9991329908370972), ('humaine', 0.9991293549537659)]
```

Hidden ontologies, 'realite'



```
result = model_EZ.wv.most_similar(positive=['realite'], topn=20)
print(result)
```

Zemmour

```
[('nucleaire', 0.9993786215782166), ('situation', 0.9993518590927124), ('democratie', 0.9993396401405334), ('islam', 0.9992491006851196), ('islamistes', 0.9992402195930481), ('militaire', 0.9992380142211914), ('societe', 0.9992262721061707), ('propos', 0.9992249011993408), ('croit', 0.9991958141326904), ('travers', 0.9991818070411682), ('famille', 0.999180793762207), ('politiciens', 0.9991706013679504), ('penser', 0.9991371035575867), ('camp', 0.9991199374198914), ('general', 0.9991037845611572), ('role', 0.9991030097007751), ('jour', 0.9990905523300171), ('veritable', 0.9990879893302917), ('publiques', 0.9990838766098022), ('courageux', 0.9990789890289307)]
```

```
result = model_YJ.wv.most_similar(positive=['realite'], topn=20)
print(result)
```

Jaldot

```
[('environnement', 0.9996785521507263), ('temps', 0.9996718764305115), ('bravo', 0.9996695518493652), ('societe', 0.9996694922447205), ('produits', 0.9996665716171265), ('protection', 0.9996663928031921), ('compte', 0.999664843082428), ('cette', 0.9996647238731384), ('associations', 0.9996640682220459), ('sujet', 0.9996626973152161), ('grand', 0.9996621608734131), ('eelv', 0.9996610879898071), ('semaine', 0.9996604919433594), ('education', 0.9996565580368042), ('ensemble', 0.9996541142463684), ('mesures', 0.9996533989906311), ('publique', 0.9996531009674072), ('systeme', 0.9996515512466431), ('question', 0.9996514916419983), ('monde', 0.9996501803398132)]
```

```
result = model_AH.wv.most_similar(positive=['realite'], topn=20)
print(result)
```

Hidalgo

```
[('question', 0.9997767210006714), ('homme', 0.9997715353965759), ('mieux', 0.9997655749320984), ('ehpad', 0.9997595548629761), ('baisse', 0.9997565746307373), ('regles', 0.999756395816803), ('beaucoup', 0.9997525811195374), ('grande', 0.9997513294219971), ('engage', 0.999750554561615), ('semaines', 0.999748706817627), ('propos', 0.9997482895851135), ('nouvelles', 0.9997456669807434), ('politiques', 0.9997425675392151), ('suppression', 0.9997410774230957), ('bonne', 0.9997386336326599), ('mesures', 0.9997365474700928), ('groupe', 0.9997358918190002), ('video', 0.9997348785400391), ('enjeux', 0.9997345805168152), ('mots', 0.9997329711914062)]
```

Extra, 'contre'



```
result = model.wv.most_similar(positive=['contre'], topn=20)
print(result)
```

?

```
[('lutte', 0.9991379976272583), ('violences', 0.9990000128746033), ('fautes', 0.9986220598220825), ('lutter', 0.998614490032196), ('faut', 0.9982362389564514), ('precarite', 0.9982096552848816), ('terroisme', 0.9980995655059814), ('les', 0.9980072379112244), ('droits', 0.99791598320000/32), ('enseignants', 0.9978906512260437), ('victimes', 0.9978271126747131), ('discriminations', 0.9977656006813049), ('harcelement', 0.9977416396141052), ('ete', 0.9977385401725769), ('publique', 0.9977258443832397), ('inegalites', 0.9976784586906433), ('salariale', 0.9976444840431213), ('trop', 0.9976357221603394), ('femmes', 0.997622907161/126), ('reindre', 0.9976137280464172)]
```

```
result = model.wv.most_similar(positive=['contre'], topn=20)
print(result)
```

?

```
[('sanctions', 0.998372495174408), ('russie', 0.9980396628379822), ('faut', 0.9975399971008301), ('lutte', 0.9973570704460144), ('les', 0.9972985982894897), ('russe', 0.9970904588699341), ('lutter', 0.9970436692237854), ('pays', 0.9969909191131592), ('agriculteurs', 0.9969825744628906), ('russes', 0.9969214797019958), ('economique', 0.9969191551208496), ('consequence', 0.9968554377555847), ('proteger', 0.9967385530471802), ('entreprises', 0.9966539740562439), ('prises', 0.9966380000114441), ('vie', 0.996531069278717), ('fraudes', 0.9964881539344788), ('europeen', 0.9964296817779541), ('consequences', 0.99637371301651), ('economiques', 0.9963663816452026)]
```

```
result = model.wv.most_similar(positive=['contre'], topn=20)
print(result)
```

?

```
[('islamisme', 0.9995967149734497), ('combat', 0.9994536638259888), ('lutte', 0.9993926882743835), ('menace', 0.9993759393692017), ('immigration', 0.9993295669555664), ('jamais', 0.999280024490356), ('egalite', 0.9992806315422058), ('des', 0.9992772936820984), ('jour', 0.9992680549621582), ('non', 0.999248743057251), ('soumission', 0.9992415904998779), ('lutter', 0.9992398023605347), ('notre', 0.999234139919281), ('violences', 0.9992326498031616), ('voile', 0.9992188215255737), ('gouvernement', 0.9992167949676514), ('situation', 0.9992164969444275), ('cette', 0.9992092251777649), ('annees', 0.9992069602012634), ('aucune', 0.999196469783783)]
```

Extra, 'contre'

```
result = model_AH.wv.most_similar(positive=['contre'], topn=20)
print(result)
```

Hidalgo

```
[('lutte', 0.9991379976272583), ('violences', 0.9990000128746033), ('fautes', 0.9986220598220825), ('lutter', 0.998614490032196), ('faut', 0.9982362389564514), ('precarite', 0.9982096552848816), ('terrorisme', 0.9980995655059814), ('les', 0.9980072379112244), ('droits', 0.9979159832000732), ('enseignants', 0.9978906512260437), ('victimes', 0.9978271126747131), ('discriminations', 0.9977656006813049), ('harcelement', 0.9977416396141052), ('ete', 0.9977385401725769), ('publique', 0.9977258443832397), ('inegalites', 0.9976784586906433), ('salariale', 0.9976444840431213), ('trop', 0.9976357221603394), ('femmes', 0.997622907161726), ('reduire', 0.9976137280464172)]
```

```
result = model_MLP.wv.most_similar(positive=['contre'], topn=20)
print(result)
```

Le Pen

```
[('sanctions', 0.998372495174408), ('russie', 0.9980396628379822), ('faut', 0.9975399971008301), ('lutte', 0.9973570704460144), ('les', 0.9972985982894897), ('russe', 0.9970904588699341), ('lutter', 0.9970436692237854), ('pays', 0.9969909191131592), ('agriculteurs', 0.9969825744628906), ('russes', 0.9969214797019958), ('economique', 0.9969191551208496), ('consequence', 0.996855437755847), ('proteger', 0.9967385530471802), ('entreprises', 0.9966539740562439), ('prises', 0.9966380000114441), ('vie', 0.996531069278717), ('fraudes', 0.9964881539344788), ('europeen', 0.9964296817779541), ('consequences', 0.99637371301651), ('economiques', 0.9963663816452026)]
```

```
result = model_VP.wv.most_similar(positive=['contre'], topn=20)
print(result)
```

Pécresse

```
[('islamisme', 0.9995967149734497), ('combat', 0.9994536638259888), ('lutte', 0.9993926882743835), ('menace', 0.9993759393692017), ('immigration', 0.9993295669555664), ('jamais', 0.999280024490356), ('egalite', 0.9992806315422058), ('des', 0.9992772936820984), ('jour', 0.9992680549621582), ('non', 0.999248743057251), ('soumission', 0.9992415904998779), ('lutter', 0.9992398023605347), ('notre', 0.999234139919281), ('violences', 0.9992326498031616), ('voile', 0.9992188215255737), ('gouvernement', 0.9992167949676514), ('situation', 0.9992164969444275), ('cette', 0.9992092251777649), ('annees', 0.9992069602012634), ('aucune', 0.999196469783783)]
```

Findings and Contributions

- Technique
 - Variable word embedding models to read (digital) political discourse
 - Establishing coherence between political ontology, nature of meaning and ambiguity of data science enables for qualitative interpretive approach to quantitatively-processed results
- Politics
 - Enrich political scientific research with the integration of unsupervised insights
 - Analyse political dynamics beyond the classical mono- or bi-dimensionality (economic left-right axis and cultural populist–cosmopolitan)
 - Possibility to put extracted constellations of words in conversation with one another and in comparison to one another
- Words: Hidden ontologies & Extra
 - Unveil the latent worldviews of political actors
 - Words which reference large omniscient entities ('monde' and 'realite') or positionality ('contre') are particularly evocative of unexpressed politics

Limits and Possibilities

- Inductive logic, leap of faith (\rightarrow abductive logic)
- Tweaking the parameters
 - min_len = 3 + min_count = 10, vector_size=300
- Data limitations
 - PR-controlled communication: copy-paste copy-paste copy-paste copy-paste copy-paste copy-paste copy-paste copy-paste
 - Twitter: specific audience, specific medium
 - Doubling tweets \rightarrow Overfitting?
- Other analysis are possible
 - Translation from a model to another (Milbauer et al., (2021))

Thank you!