TRUMP IS ERASING
CLIMATE CHANGE... LANGUAGE
A corpus-assisted Critical Discourse Analysis of the US online environmental communications under Obama and Trump

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Abstract – Climate change constitutes one of the major challenges of our time. The United States, in particular, represent one of the main greenhouse gas emitters in the world. Under the Obama administration, the US promoted a plan to reduce carbon pollution and incentivise clean energy. A constant stream of information on the impacts of climate change was disseminated online. By contrast, President Trump's election has been linked to a tendency to discredit scientific knowledge. Pursuing an "America first energy plan", Trump aims at rescinding environmental regulations he considers an impediment to business. The present study analyses a corpus of environmental information about global warming and energy policies published on official governmental websites, comparing the data and reports produced during Obama's office with the most recent communications which reflect the priorities of Trump's administration. Applying Corpus-Assisted Critical Discourse Analysis, the study investigates how scientific knowledge about climate change has been reproduced online to serve different interests and support contrasting ideologies. The paper investigates the selection and prominence attributed to specialised information, the argumentations exploited to justify political choices and the authoritative sources quoted to support positions. Particular relevance is assigned to the discourse accompanying the dismissal of basic climate change tenets and the demolition of environmental programmes operated by the current US Presidency. The study shows how Trump's reshaping of environmental policy priorities involves refashioning online contents, by excising, hiding or limiting the importance of any mentions to climate change. Moreover, the present administration is shifting emphasis towards usage of fossil fuels, based on an anachronistic contrast between stewardship of natural resources and economic development.

Keywords: Critical Discourse Analysis; Corpus-Assisted Discourse Analysis; climate change; political discourse; environmental discourse.

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[1] The authors discussed and conceived the article together. In particular, Antonella Napolitano is responsible for sections 1, 2, 4.4, 4.5, Maria Cristina Aiezza for sections 3, 4.1, 4.1.1, 4.2, 4.3, 5.

We must not be indifferent or resigned to the
loss of biodiversity and the destruction of
ecosystems, often caused by our irresponsible
and selfish behaviour.
Because of us, thousands of species will no
longer give glory to God by their very
existence.
We have no such right.
(Pope Francis, 01/09/2016).

1. USA and climate change

Climate change represents one of the main challenges for humankind in this century. The United Nations Intergovernmental Panel on Climate Change (IPCC; UN 2012) periodically assesses international publications by climate scientists "to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts".[2] In one of its last comprehensive studies, the organisation reached a categorical conclusion: unprecedented climate changes observed since the 1950s – such as atmosphere and ocean warming, sea level rise, permafrost reduction – reveal that global warming is "unequivocal" and influenced by the human activity conducted since the Industrial Revolution (IPCC 2013, pp. 4, 17).
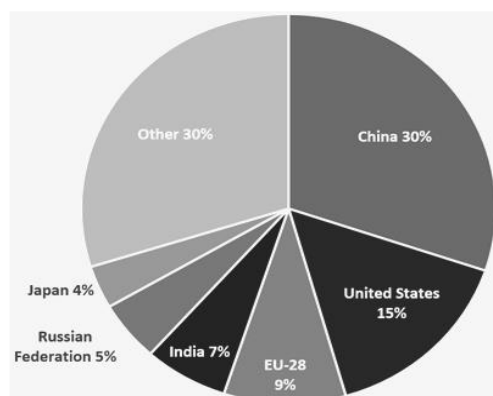

Table 1
Global CO_2 emissions from fossil fuel combustion
and industrial processes (Boden *et al*. 2017).

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[2] IPCC (United Nations Intergovernmental Panel on Climate Change), *Organization*. https://www.ipcc.ch/organization/organization.shtml (08.03.2018).

Carbon dioxide emissions deriving from fossil fuel combustion and industrial processes represent the largest source of greenhouse gas emissions, leading to an increase in the global temperature. In particular, being one of the most industrialised countries, the United States of America are the second biggest greenhouse gas emitter in the world (see Table 1):

Barack Obama considered climate change as one of the most pressing challenges of our time. The former US President attached particular importance to environmental issues, as testified, for instance, by the words he pronounced in 2013, during his second Inaugural Address. Obama described the destructive effects of climate change in metaphorical terms, as similar to a terrorist invasion:

> We, the people, still believe that our obligations as Americans are not just to ourselves, but to all posterity. We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations. Some may still deny the overwhelming judgment of science, but none can avoid the devastating impact of raging fires, and crippling drought, and more powerful storms. [underlining added] (Obama 21.01.2013)

The trope of war here exploited recalls the language typically associated to global warming in the US news discourse, which frequently employs terms such as *threat*, *reduce* or *fight* (Grundmann, Krishnamurty 2010).

During the Obama Presidency, a constant stream of information on the ongoing and projected impacts of climate change was initiated and disseminated online, especially through the website of the Environmental Protection Agency (EPA).[3] A diametrically opposed position is being held by President Donald Trump. His 2017 election was linked to a "growing popular suspicion of expertise", a tendency to consider scientific knowledge as mere opinions and "to seek out alternative narratives to fact-based analysis" (Anthony 18.03.2017). In the past few years, Trump had already been expressing his climate denier views, for instance in over 100 posts on his Twitter social media account (Matthews 01.06.2017). He defined climate change as a 'hoax' and mocked the issue through a quite annoying mix of ignorance and sarcasm, as evident from his *tweets*:

> They changed the name from 'global warming' to 'climate change' after the term global warming just wasn't working (it was too cold)! (Donald J. Trump, @realDonaldTrump 7:15 PM, 25.03.2013)

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[3] "Established in 1970 in the wake of elevated concern about environmental pollution, the entity coordinates federal research, monitoring, standard-setting and enforcement activities with the aim of ensuring a cleaner and healthier environment." EPA (United States Environmental Protection Agency), *History*. https://www.epa.gov/history (05.03.2018).

> Ice storm rolls from Texas to Tennessee – I'm in Los Angeles and it's freezing. Global warming is a total, and very expensive, hoax! (Donald J. Trump, @realDonaldTrump 4:13 PM, 06.12.2013)

> It's really cold outside, they are calling it a major freeze, weeks ahead of normal. Man, we could use a big fat dose of global warming! (Donald J. Trump, @realDonaldTrump 2:30 PM, 19.10.2015)

In the US, the terminological distinction between the expressions *climate change* and *global warming* has recently received considerable attention for the perceived value-laden nature of such labels. The lexical issue was even examined by interest groups and political strategists from various parties. The former expression was used to present the environmental problem from a more scientific perspective, while the latter was chosen to depict a more dramatic scenario requiring political action (Grundmann, Krishnamurty 2010, pp. 131-132). With regard to the debate, Frank Luntz, Republican consultant under George W. Bush, in particular, urged that *climate change* be used instead of *global warming*, since

> "*[c]limate change is less frightening than global warming*" […] While global warming has catastrophic communications attached to it, climate change sounds a more controllable and less emotional challenge. (Luntz 2002, p. 142)

A more extreme position is being held by the present Republican administration. In particular, President Trump described environmental laws as an impediment to business and launched his 'America first' energy plan. Since his access to the US Presidency, Trump has been trying to dismantle much of the past legislation on emissions, especially Obama's rules known as *Clean Power Plan*, which limited carbon pollution from US power stations (see also Paragraph 4.4).

President Trump appointed as head of the EPA a climate change sceptic, Oklahoma Attorney General Scott Pruitt, who promised to weaken regulation of carbon emissions from cars and power plants (see also Paragraph 4.3). In the past, Pruitt had actually acted in close concert with oil and gas companies to challenge environmental regulations and, on his LinkedIn profile, he even described himself as a "leading advocate against the EPA's activist agenda" (Milman, Rushe 22.02.2017).

On June 1, 2017, President Trump also announced the United States' withdrawal from the *Paris Climate Agreement*. Signed in 2016 within the United Nations Framework Convention on Climate Change (UNFCCC), the pact aimed to limit global warming and "strengthen the ability of countries to

deal with the impacts of climate change".[4] While reaffirming his desire to invigorate domestic coal mining, Trump described the mitigation actions required by the pact as a threat to national interests:

> The Paris Accord would undermine our economy, hamstring our workers, weaken our sovereignty, impose unacceptable legal risks, and put us at a permanent disadvantage to the other countries of the world." (Trump 01.06.2017)

In addition to its indifference towards environmental issues, the administration is also showing a worrying and absurd lack of respect for the work of professionals. As observed by The National Geographic constant observatory, science advisors have been dismissed and online scientific contents have been excised. Hereafter, some titles from its running list of news articles on how Trump is 'changing' the US science:

> "Scramble to save science data"
> "'Science' scrubbed"
> "EPA chief downplays climate"
> "Science and environment budget threatened"
> "EPA scientist retires with a bang"
> "Climate change staffers reassigned"
> "Interior Department scrubs climate change website"
> "Scientists march on Washington"
> "EPA scrubs climate change website"
> "EPA dismisses science advisors" (Greshko *et al*. 25.10.2017)

In particular, by exploiting the volatile feature of the Internet, the present administration is gradually refashioning online contents, by removing, hiding or limiting the importance of any references to climate change in official media, while shifting emphasis away from renewable energy and towards traditional usage of fossil fuels (Milman, Morris 14.05.2017). Worrying reports also come from the Environmental Data and Governance Initiative (EDGI), an international network of academics and non-profits addressing potential threats to federal environmental and energy policy and scientific research. Its Website Monitoring Committee records how data, information, and their presentation is altered in official websites. In particular, the organisation has detected changes in the online pages of: Department of State, Department of Energy; EPA; Department of the Interior; White House; Government Accountability Office; Department of Transportation; Department of Health and Human Services; Federal Emergency Management Agency (see EDGI).

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[4] UNFCCC (United Nations Framework Convention on Climate Change), *The Paris Agreement*. http://unfccc.int/paris_agreement/items/9485.php (09.03.2018).

Along the reshaping of environmental policy priorities, Trump is thus also questioning and limiting access to scientific evidence of global warming. Such a reactionary attitude seems to acknowledge the power of language to shape reality, "the constructive effects discourse has upon social identities, social relations and systems of knowledge and belief" (Fairclough 1992, p. 12). Trump's spectacular political turnaround is thus being accompanied by a forced discursive change in the information issued by official government sources. By rubbing out mentions of climate change, the present administration is thus attempting to erase the relevance of the issue in the public opinion.

Considering such shift in the environmental discourse recently experienced in the United States, the present research analyses a corpus of online communications on the issue of climate change comparing texts published during the last Presidencies.

2. Aims and purposes

The study aims at investigating how scientific knowledge about climate change has been reproduced, represented – and altered – online under Obama and Trump Presidencies, focusing on how the US official environmental discourse is being rewritten in order to reflect the priorities of the current Republican administration. More specifically, the paper considers the choice and relevance attributed to specialised knowledge in governmental publications and websites and the argumentations and authoritative sources exploited to justify decisions and policies.

3. Corpus and methods

In order to compare diversified documents produced during the two different administrations, it appeared useful to integrate multiple analytical perspectives, applying a framework (Baker *et al.* 2013) which combines Critical Discourse Analysis (CDA) (see e.g. van Dijk 2011) and Corpus Linguistics (see e.g. Baker 2006). Critical approaches to discourse aim at showing how discourse is both shaped by and contributes to shaping relations of power and ideologies (Fairclough 1992, p. 12). CDA involves the close examination of how language is used in texts to represent particular stances:

> The analysis of representational processes in a text, therefore, comes down to an account of what choices are made – what is included and what is excluded, what is made explicit or left implicit, what is foregrounded and what is backgrounded, what is thematized and what unthematized, what process types and categories are drawn upon to represent events, and so on. (Fairclough

1995, p. 104)

The analysis of the discourse associated with environmental endangerment represents a goal strictly related to the Critical Discourse Studies agenda. Ecological destruction can, indeed, be considered as part of the existing oppressive relations between humans and other humans and between humans and nature (see Stibbe 2014). As Fairclough (2004, p. 104) stated, "[t]he unrestrained emphasis on growth [also] poses major threats to the environment". The capitalist world often downplays the intrinsic ethical value of flora and fauna in the name of the view of nature as a commodity. At the same time, the natural world is also discursively erased from human consciousness, supporting its anthropocentric exploitation and reducing human responsibility in its devastation. Such an 'oblivion' of nature takes place at multiple levels, from sentences and clauses, e.g. through a series of linguistic devices such as metaphors, metonymies, nominalisations, passivisation, ergativity (see e.g. Gerbig 1993; Goatly 2001), to texts and discourses as a whole (Stibbe 2014, pp. 587-588; for a review of the literature on ecolinguistics see e.g. Alexander, Stibbe 2013).

Corpus analysis tools support the present investigation, in that they allow the researcher to identify themes and patterns which may not be evident to the naked eye – e.g. through frequencies, keywords and collocations – thus pinpointing areas for a subsequent close analysis (Baker *et al.* 2013, pp. 20-28). The study also considered how specialised scientific knowledge is popularised, i.e. diffused to the general public (Gotti 2005, p. 203), evaluating how the informative purpose has been bent to promote "private intentions" and ideological interests (Bhatia 2004). Since popularisation involves the transformation of a source text into a derived text, the redrafting can generate an imperfect equivalence. Language and facts may thus be oversimplified, and approximation and omission of specific contents may actually conceal a deliberate distortion.

Through such manifold framework, the study compared a selection of facts, data and reports produced during Obama's office with the most recent communications and modifications by the Trump administration. The corpus is articulated in two main subcorpora, collecting texts issued under the two Presidencies. As shown in Table 2, the corpus is further divided in subsections, organised by source and topic. Both subcorpora include: the documents stating EPA's strategy; the scientific report *National Climate Assessment*; the regulatory measures about the Clean Power Plan published on the EPA websites. The corpus also collects, on the one hand, the climate change information published on the EPA website during the Obama Presidency and, on the other, the news releases on how to comply with Trump's new environmental policies in the sections *Climate* and *Energy* and published between February 2, 2017 and November 9, 2017.

Obama Subcorpus	Tokens	Types	Trump Subcorpus	Tokens	Types
Total	1,347,252	27,032	Total	323,933	13,997
EPA Strategic Plan 14-18	38,283	3,927	*EPA Strategic Plan 18-22*	14,916	2,099
National Climate Assessment 2014	497,594	19,000	*National Climate Assessment 2017*	272,305	11,266
EPA website: *Clean Power Plan*	771,647	10,921	EPA website: *Complying with President Trump's Executive Order on Energy Independence*	30,514	2,693
EPA website: *Climate Change* Section	59,904	4,564	EPA website: News Releases on *Climate* and *Energy*	12,698	2,126

Table 2
Corpus overview.

As evident from the data displayed in Table 2, the two subcorpora may not appear to be exactly comparable. This is mainly due to the limited amount of materials recently released and to the lack of a *Climate Change* section in the new Trump-era EPA website, which led the authors to select news releases as a further source of information. Nevertheless, it still appeared interesting to contrast the available data in order to investigate the 'transformation' of the US environmental science and strategies.

The texts were investigated with the support of the corpus analysis suite *WordSmith Tools 6.0* (Scott 2014) in order to identify recurring patterns. The corpus was also POS (part-of-speech) tagged with the aid of the online corpus query system *SketchEngine* (Kilgarriff *et al*. 2014) to establish word classes and syntactic categories. *SketchEngine* website also offers the function *Word Sketches*, i.e. corpus-derived summaries of the grammatical and collocational behaviour of words (Kilgarriff *et al*. 2010, p. 372), which may also be contrasted between subcorpora through the *Word Sketch Differences* utility.

In the initial phases of the study, a context-based analysis of the ecological discourse in the United States politics was performed via wider reading. The preliminary exploration highlighted a controversial rewriting and communication of climate change knowledge and policies under Trump's administration and guided corpus collection. Close reading of the corpus and computational analysis (e.g. of frequencies, clusters, keywords etc.) allowed to identify potential sites of interest in the documents along with possible discourses and strategies. Representative and significant sets of data within the corpus (namely, keywords, *word sketches*, concordances of key lexical items in the corpus and in a set of texts within the corpus) were analysed from a qualitative and CDA perspective, then contextualising findings in the wider social and political context (for further insights on the study framework combining CDA with corpus linguistics, see Baker *et al*. 2008, p. 295; Baker

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et al. 2013, p. 27). In particular, the present study compared Obama's and Trump's EPA websites, environmental reports, laws and information focusing on the selection, prioritisation and popularisation of scientific information, the quotation of authoritative sources to support positions and the exploitation of contrasting argumentations to justify political choices.

4. Analysis

4.1 The erased section on climate change

At the time of writing this paper, the EPA website is still being updated, however, the Obama-era version of the site is still available,[5] as it was migrated, frozen on January 19, 2017, i.e. the day before Trump's presidential inauguration. Comparing the two sites, in Trump's EPA website the issue of *climate change* does not appear to be listed any more among the main *Environmental Topics* (compare Figure 2 against Figure 1).
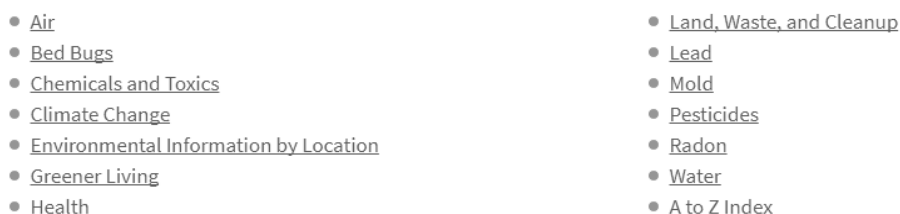
- Air
- Bed Bugs
- Chemicals and Toxics
- Climate Change
- Environmental Information by Location
- Greener Living
- Health

- Land, Waste, and Cleanup
- Lead
- Mold
- Pesticides
- Radon
- Water
- A to Z Index

Figure 1
EPA *Environmental Topics* during Obama's administration.

- Air
- Bed Bugs
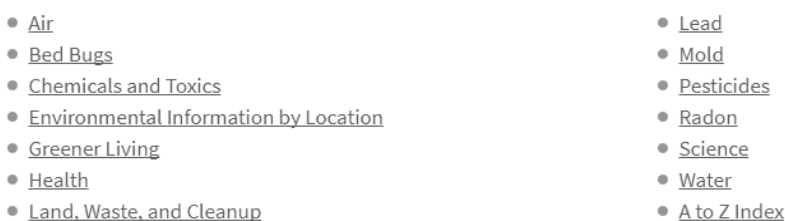- Chemicals and Toxics
- Environmental Information by Location
- Greener Living
- Health
- Land, Waste, and Cleanup

- Lead
- Mold
- Pesticides
- Radon
- Science
- Water
- A to Z Index

Figure 2
EPA *Environmental Topics* during Trump's administration.

Nonetheless, *climate change* is currently still present in the EPA alphabetical *Index of Environmental Topics* (see Figure 4). Yet, at present, the section contains limited materials and the main page on the theme in not clickable and accessible any more in the new version of the EPA website (compare Figure 4 against Figure 3).

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[5] EPA (United States Environmental Protection Agency) 19.01.2017, *Snapshot*.
https://19january2017snapshot.epa.gov/ (05.03.2018).

*L*ingue e
*L*inguaggi

- Climate Change
  - Adaptation Resource Center (ARC-X), Climate Change
  - Analysis Report, Climate Change
  - Causes, Climate Change
  - Climate and Land-Use Scenarios
  - Climate Leadership Center
  - Effects, Climate Change
  - Facts, Climate Change
  - Indicators, Climate Change
  - Research, Climate Change
  - State, Local, and Tribal Governments, Climate and Energy Resources
  - Water Impacts, Climate Change

- Climate Change
  - Adaptation Resource Center (ARC-X), Climate Change
  - Analysis Report, Climate Change
  - Climate and Land-Use Scenarios
  - Climate Leadership Center
  - Indicators, Climate Change
  - Research, Climate Change
  - Water Impacts, Climate Change

Figure 3
Climate Change in EPA *A-Z Index* during Obama's administration.

Figure 4
Climate Change in EPA *A-Z Index* during Trump's administration.

When one tries to reach the general page on climate change on Trump's EPA website, one will be redirected to a notice page stating:

> This page is being updated.
> Thank you for your interest in this topic. We are currently updating our website to reflect EPA's priorities under the leadership of president Trump and Administrator Pruitt.[6]

Amazingly, as regards this matter, J.P. Freire, Associate Administrator for Public Affairs at the EPA, shamelessly justified the issue by declaring that the present agency was currently "removing outdated language":

> We want to eliminate confusion by removing outdated language first and making room to discuss how we're protecting the environment and human health by partnering with states and working within the law. (Freire in EPA 28.04.2017)

With a political act, Trump's administration is thus wiping out the most evident web pages on climate change. In plain words, Trump is now repudiating the language that was actually the result of years of internationally reviewed research. As the rewording process is still in progress, it will be particularly interesting to discover how scientific information will be further reshaped in the next future.

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[6] EPA (United States Environmental Protection Agency), *Climate Change*. https://www.epa.gov/climatechange (10.03.2018).

4.1.1 Popularisation of scientific knowledge online

The Obama-era section on climate change, which has been completely erased from the current EPA website, aimed at providing information on the environmental issue to the general public, based on the most recent scientific data and exploiting several popularisation strategies (see e.g. Rasulo 2014). Causes and facts were, for instance, presented in the form of answers to the citizens' common doubts (see Figure 5) and readers were even engaged through a quiz testing their knowledge about the impacts of climate change[7].
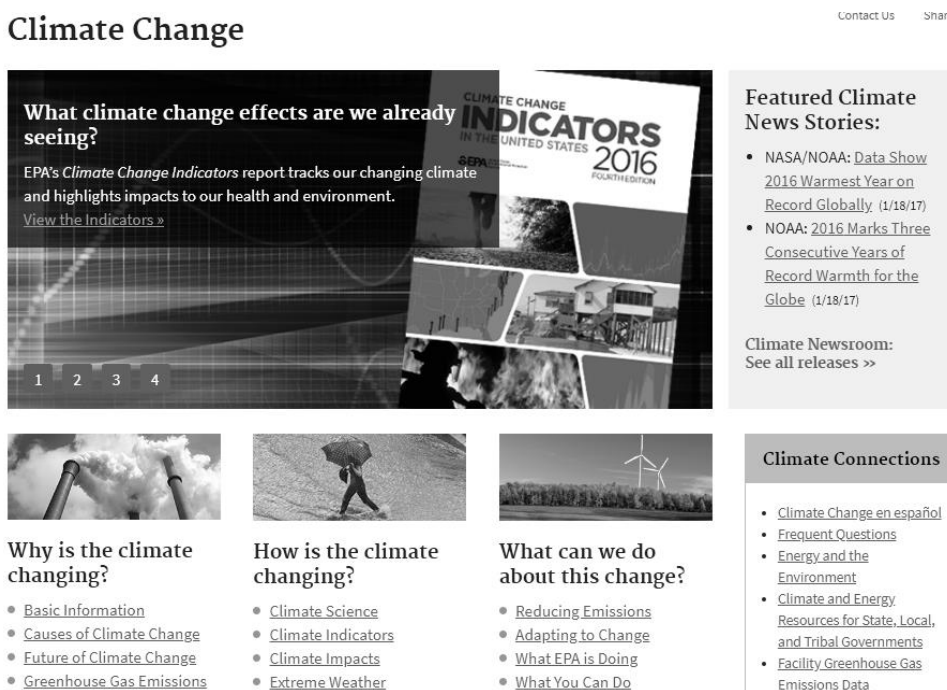

Figure 5
Climate Change page in EPA website during Obama's administration.

Climate change was not constructed as a remote hypothesis but as a fact, as shown by the statements in Figures 6 and 7. The impacts were exemplified through clear evidence, especially by listing the extreme weather conditions our planet is experiencing. As a common trend in the contemporary scientific discourse, ergative constructions, e.g. "Climate is changing", "our earth is warming", and nominalisations, such as "the buildup of greenhouse gases", "the warming of the planet", were used instead of transitive clauses to describe environmental processes taking place in the current world. As discussed by ecolinguistics experts (e.g. Alexander 1996; Gerbig 1993;

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[7] EPA (United States Environmental Protection Agency) 19.01.2017, *Snapshot*, *Quiz: How Much Do You Know About the Health Impacts of Climate Change?* https://archive.epa.gov/epa/climate-impacts/text-version-quiz-how-much-do-you-know-about-health-impacts-climate-change.html (10.03.2018).

Goatly 2001), transitive constructions would explicitly identify the participants involved and clearly define the responsible actors and the affected participants in processes of environmental degradation and destruction. The use of ergative forms seems instead to frame the state of an entity as the result of some self-generating process (Goatly 2001, pp. 218-220). Agent deletion may also occur through the device of nominalisation, which puts less emphasis on the affected beings, suppressing agentivity, intention, motivation, and responsibility (Gerbig 1993; Goatly 2001; Schleppegrell 1997).

Earth's climate is changing

The global average temperature has increased by more than 1.5°F since the late 1800s.[2] Some regions of the world have warmed by more than twice this amount. The buildup of greenhouse gases in our atmosphere and the warming of the planet are responsible for other changes, such as:

- Changing temperature and precipitation patterns [1][2]
- Increases in ocean temperatures, sea level, and acidity
- Melting of glaciers and sea ice [1]
- Changes in the frequency, intensity, and duration of extreme weather events
- Shifts in ecosystem characteristics, like the length of the growing season, timing of flower blooms, and migration of birds
- Increasing effects on human health and well-being

Learn more about the indicators of climate change.

Climate change is happening

Our Earth is warming. Earth's average temperature has risen by 1.5°F over the past century, and is projected to rise another 0.5 to 8.6°F over the next hundred years. Small changes in the average temperature of the planet can translate to large and potentially dangerous shifts in climate and weather.

The evidence is clear. Rising global temperatures have been accompanied by changes in weather and climate. Many places have seen changes in rainfall, resulting in more floods, droughts, or intense rain, as well as more frequent and severe heat waves.

Figure 6
Climate Change page in EPA website
during Obama's administration.

Figure 7
Climate Change page in EPA website
during Obama's administration.

Nevertheless, in the environmental discourse of the EPA website under President Obama, lack of agentivity was not accompanied to a denial of human responsibility in environmental damage or preservation. Personalisation was instead even exploited to involve readers in the process of climate change mitigation, especially through the usage of the second person pronoun *you* (414 instances, 0.03% of the whole Obama subcorpus, against 32 occurrences, 0.01%, in the Trump corpus). In particular, the construction of *you* as a subject pronoun in the collocation *you can* (27 entries, 0.02%) appeared to be interestingly revealing. As noticeable from the concordance lines in Figure 8, the modal verb was used on the website especially when providing advice about what the common citizen *can do* at home, on the road and at work to reduce greenhouse gas emissions.

In Obama's discourse, the American people were thus not only presented as the receivers of political measures, but were also engaged as part of a responsible and forward-looking project to face one of the major challenges of the 21st century and preserve the natural world. The discourse of personal environmental commitment has instead been completely excised

from the new EPA website. Such choice appears to be in line with Trump's tendency to remove any active requirements from citizens, representing the population as passively waiting to receive the due benefits from the government (see also Mettomäki 2017).

N	Concordance
1	What You Can Do: At Home Making a few small
2	you money. Explore our list of 10 simple steps you can take to reduce greenhouse gas
3	help you make the most energy-efficient decision. You can find the ENERGY STAR label on more
4	energy bill—about $1,000 a year! There is a lot you can do to drive down this cost. Simple steps
5	the environment. Depending on where you live, you can cut your annual energy bill by more than
6	the sun. There are two ways to use green power: You can buy green power, or you can modify
7	use green power: You can buy green power, or you can modify your house to generate your own
8	energy supply. There are a number of steps you can take to create a greener home,
9	]This rise in extreme weather events fits a pattern you can expect with a warming planet. Scientists
10	information about climate adaptation and things you can do to prepare for changes in extreme
11	Change Adaptation. For more information on how you can reduce greenhouse gas emissions at
12	, on the road, and in your workplace, see What You Can Do. References [1] USGCRP (2014).
13	emissions calculator, and much more. • What You Can Do about Climate Change on EPA's
14	Climate Change site offers suggestions for what you can do at home, at the office, at school, and
15	climate-related health risks by state and actions you can take to reduce these risks. • Air Quality
16	critical component of our atmosphere. However, you can have too much of a good thing. The
17	will live in. We can make a difference You can take action. You can take steps at
18	. We can make a difference You can take action. You can take steps at home, on the road, and in
19	or biking to work, can even improve your health! You can also get involved on a local or state
20	that can reduce these emissions, see What You Can Do. Other climate forcers Particles and
21	emissions, see What EPA is Doing and What You Can Do. Top of Page Changes in the sun's

Figure 8
Sample of concordance lines for *you can* in the Obama corpus.

The Obama EPA website summarised scientific knowledge about climate change also by endorsing the propositions with references to "highly credible and warrantable" (Martin, White 2005, p. 116) authoritative sources. In particular, as shown in Figure 9, expert studies were mentioned through the general noun *scientist** (173 entries, 0.01%, against only 20 occurrences in the Trump corpus, 0.006%, of which 19 in the NCA 2017 report and just 1 on the Trump-era EPA website, see Paragraph 4.5). Moreover, each online subsection on climate change also contained a set of bibliographical references citing official research, for a total of 72 quotations. The most quoted authorities were the EPA (7 mentions), the IPCC (7 quotes) and especially the US Global Change Research Program (USGCRP) (42 references), so that policies on environmental protection were construed as based on sound science.

N	Concordance
1	Weather Changes in Extreme Weather and Climate Events Scientists study many aspects of change in extreme
2	more erosion, threatening many communities with relocation. Scientists who study climate change confirm that these
3	certainty that climate change is happening now. While scientists continue to refine projections of the future,
4	from the top of the atmosphere to the depths of the oceans. Scientists and engineers from around the world have
5	in Greenland and Antarctica is limited, making it difficult for scientists to narrow the range of expected future sea level
6	factors have caused Earth's climate to change many times. Scientists have pieced together a record of Earth's climate,
7	of multiple factors, including natural variability. Nevertheless, scientists have been able to draw a connection between
8	the atmosphere to the depths of the oceans (Figure 2.1).3 Scientists and engineers from around the world have
9	." And around the same time we began exploring space, scientists were studying changes taking place in the Earth's
10	climate system (e.g., changes in ocean circulation patterns) Scientists use computer models of the climate system to
11	changes taking place in the Earth's atmosphere. Now, scientists had known since the 1800s that greenhouse
12	have repeatedly shown that more than 97 percent of scientists in the field agree that the world is unequivocally
13	of changes in average temperature or precipitation, climate scientists are actively researching the connections between
14	events fits a pattern you can expect with a warming planet. Scientists project that climate change will make some of
15	of both past and future emissions from human activities. Scientists are working to narrow the range of sea level rise
16	(see Figure 2.26 on global sea level rise).122,123 Although scientists cannot yet assign likelihood to any particular
17	agrees on every component of the climate change problem. Scientists are still researching a number of important
18	changes in oceans and clouds will affect climate change. Scientists continue to research these questions so society
19	), 1970 CAA Legis. Hist. at 1381. 206 For instance, while scientists, such as Stephen Schneider of the National
20	emissions and other human factors that influence climate, scientists use a range of scenarios using various
21	changes." 200 At that time, Congress heard the views of scientists that carbon dioxide emissions tended to increase

Figure 9
Sample of concordance lines for *scientist** in the Obama corpus.

4.2 The National Climate Assessments

The USGCRP is a US programme established in 1989 by Presidential Initiative to coordinate federal research on global environmental changes. The organisation is required to conduct a National Climate Assessment (NCA) every four years, resulting in a report to the President and the Congress. The document serves crucial functions, including: identifying advances in science, providing critical analysis of climate-related issues, highlighting key policy-relevant findings, guiding climate change decision-making.[8]

Under the second Obama's Presidency, the 2014 NCA report was published and, surprisingly, in spite of the current President's scepticism, on November 3, 2017, also the Trump administration released its 2017 NCA.

The 2014 document was preceded by a letter signed by Public Authorities (namely, the Assistant to the President for Science and Technology and by the National Oceanic and Atmospheric Administration Administrator), which clearly displayed President Obama's endorsement of the scientific findings divulged in the document. The letter stated that the report represented a strong base for governmental action, as it contained essential data which would guide Obama's climate policies and decisions:

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[8] USGCRP (United States Global Change Research Program), *Legal Mandate*. https://www.globalchange.gov/about/legal-mandate (02.03.2018).

> [...] This information establishes a strong base that government at all levels of U.S. society can use in responding to the twin challenges of changing our policies to mitigate further climate change and preparing for the consequences of the climate changes that can no longer be avoided. It is also an important scientific resource to empower communities, businesses, citizens, and decision makers with information they need to prepare for and build resilience to the impacts of climate change.
> When President Obama launched his Climate Action Plan last year, he made clear that the essential information contained in this report would be used by the Executive Branch to underpin future policies and decisions to better understand and manage the risks of climate change. We strongly and respectfully urge others to do the same. [underlining added] (USGCRP 2014, p. iii)

On the contrary, Trump-era NCA did not seem to 'deserve' a similar approving introduction. In the colophon, the administration visibly distanced itself from the scientific research, insisting that the document had been published – only – to respond to a national requirement and that the law – not the Presidency – imposed it as a highly influential scientific assessment. A disclaimer was also added to stress that the report did not express any regulatory policies or "make any findings that could serve as predicates of regulatory action":

> This document responds to requirements of Section 106 of the U.S. Global Change Research Act of 1990 (P.L. 101-606, <http://www.globalchange.gov/about/legal-mandate>). It does not express any regulatory policies of the United States or any of its agencies, or make any findings of fact that could serve as predicates of regulatory action. Agencies must comply with required statutory and regulatory processes before they could rely on any statements in the document or by the USGCRP as basis for regulatory action.
> This document was prepared in compliance with Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (P.L. 106-554) and information quality guidelines issued by the Department of Commerce / National Oceanic and Atmospheric Administration pursuant to Section 515 (<http://www.cio.noaa.gov/services_programs/info_quality.html. For purposes of compliance with Section 515, this document is deemed a "highly influential scientific assessment" (HISA). [underlining added] (USGCRP 2017, p. iii)

Experts guaranteed that scientific contents were not altered in the 2017 report (Friedman, Thrush 03.11.2017). Nevertheless, if compared against the 2014 NCA, some rewordings and additions seem again to suggest that Trump's administration was forced to admit the existence of global warming (see also Mooney *et al.* 03.11.2017):

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> Multiple lines of independent <u>evidence confirm that human activities are the primary cause of the global warming</u> of the past 50 years [underlining added] (USGCRP 2014, p. 7).

> Many lines of evidence demonstrate that <u>it is extremely likely</u> that human influence has been the dominant cause of the observed warming since the mid-20th century. Over the last century, there <u>are no convincing alternative explanations</u> supported by the extent of the observational evidence [underlining added] (USGCRP 2017, p. 14).

The 2014 NCA contained several references to President Barack Obama's programme *Climate Action Plan* (5 occurrences in the 2014 NCA), viewed as a positive mitigation act:

> *Adaptation activities in the United States* [...]
> • the release of President Obama's Climate Action Plan in June 2013, which has as one of its three major pillars, preparing the United States for the impacts of climate change, including building stronger and safer communities and infrastructure, protecting the economy and natural resources, and using sound science to manage climate impacts. (USGCRP 2014, p. 672)

No references to Donald Trump or to his energy policies were instead made in 2017 NCA. The President's worrying decision to withdraw from Paris Agreement was awkwardly mentioned in the most recent report (29 instances of *Paris* (*Agreement*)). Nevertheless, no comments were added on the consequences implied by this choice to rescind international commitments:

> In June 2017, the United States announced its intent to withdraw from the Paris Agreement. The scenarios assessed below were published prior to this announcement and therefore do not reflect the implications of this announcement (USGCRP 2017, pp. 397-398).

4.3 The environmental programmes

The present study also analyses comparatively the online documents condensing Obama's and Trump's environmental and energy plans.

In 2007, Obama launched his climate change mitigation programme, known as *Climate Action Plan*. The project rested on three pillars: cutting emissions while developing clean energy sources; building infrastructures to protect citizens from severe weather impacts resulting from climate change; acting not only at home but also maintaining international leadership in the fight against climate change:

> 1. Cut Carbon Pollution in America: [...] putting in place tough new rules to cut carbon pollution [...] and move our economy toward American-made clean energy sources that will create good jobs and lower home energy bills.
> 2. Prepare the United States for the Impacts of Climate Change: [...]

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strengthen our roads, bridges, and shorelines so we can better protect people's homes, businesses and way of life from severe weather.

3. Lead International Efforts to Combat Global Climate Change and Prepare for its Impacts: [...] it is imperative for the United States to couple action at home with leadership internationally. America must help forge a truly global solution to this global challenge by galvanizing international action to significantly reduce emissions (particularly among the major emitting countries), prepare for climate impacts, and drive progress through the international negotiations. (Obama 2013, p. 5)

Trump's energy and environmental strategy was instead summarised in his *America First Energy Plan*, a name which echoed his election campaign slogan *America First*. The programme stands in diametrical opposition to the previous environmental policies, as it sets as its goals: first and foremost, eliminating Obama-era "harmful and unnecessary policies"; exploiting the national sources of energy, especially by boosting the coal industry; reaching energy independence; only "lastly", combining need for energy with a responsible protection of the environment.

> President Trump is committed to eliminating harmful and unnecessary policies such as the Climate Action Plan and the Waters of the U.S. rule […].
> We must take advantage of the estimated $50 trillion in untapped shale, oil, and natural gas reserves […].
> The Trump Administration is also committed to clean coal technology, and to reviving America's coal industry, which has been hurting for too long. […]
> President Trump is committed to achieving energy independence from the OPEC cartel and any nations hostile to our interests […].
> Lastly, our need for energy must go hand-in-hand with responsible stewardship of the environment.[9]

Challenging the regulations of Obama's era, Administrator Pruitt launched a *Back-To-Basics Agenda* for the EPA, which aims at subordinating environmental preoccupations to economic growth. Pruitt declared the "war on coal" was over (Pruitt 01.05.2017) and, with a deeply symbolical and populist act, he promoted the new energy plan among coal miners:

> [t]he coal industry was nearly devastated by years of regulatory overreach, but with new direction from President Trump, we are helping to turn things around for these miners and for many other hard working Americans. (Pruitt in EPA 13.04.2017)

Pruitt thus showed sympathy towards workers operating in the traditional energy industry, which represent a relevant part of Trump's pool of voters.

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[9] The White House, *An America First Energy Plan*. https://www.whitehouse.gov/america-first-energy (30.10.2017).

The present analysis also considers the changes introduced in the EPA Strategic Plan, the document condensing the agency mission and goals, by comparing Obama's *14-18* programme against the *18-22* EPA agenda. The Obama-era EPA aims were summarised as follows:

1. Addressing Climate Change and Improving Air Quality
2. Protecting America's Waters
3. Cleaning Up Communities and Advancing Sustainable Development
4. Ensuring the Safety of Chemicals and Preventing Pollution
5. Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance (EPA 10.04.2014, p. 4)

In clear opposition to Obama's environmentalism, mentions to *climate change* and *sustainable development* were erased from Trump's EPA objectives:

1. Core Mission: Deliver real results to provide Americans with clean air, land, and water.
2. Cooperative Federalism: Rebalance the power between Washington and the states to create tangible environmental results for the American people.
3. Rule of Law and Process: Administer the law, as Congress intended, to refocus the Agency on its statutory obligations under the law. (EPA 02.2018, p. 4)

The new EPA mission insisted instead on bringing the agency back to its duties, its "statutory obligations under the law", with a clear reference to Pruitt's personal effort (see also Paragraph 1) and, in particular, to the political debate on the *Clean Power Plan* (CPP).

4.4 The Clean Power Plan and its Repeal

Promoted in 2015 by the Obama administration, the Clean Power Plan is a policy aimed at reducing carbon pollution by 32% by 2030 and incentivising the development of sustainable sources of energy. However, more than half of the American states and numerous industry groups are challenging the regulation, alleging that such controls over emissions exceed the EPA legal authority. The law was actually suspended by the U.S. Supreme Court, yet many states are continuing to support it and are already taking steps toward cleaner sources of energy, even without a mandate. During his campaign, Donald Trump had already criticised the law, and his administration recently issued a proposal of repeal, while promising to bring back coal mining jobs (see also Friedman, Plumer 09.10.2017).

As can be seen from Table 3, a subsection of the corpus under study collects the main official regulatory texts published on the EPA website on the issue, contrasting the documents establishing Obama's Clean Power Plan

(CPP) rule against the recent acts pursued by the Trump administration to advance its Repeal:

Obama's Clean Power Plan	Trump's Repeal
• *Final Rule. Clean Power Plan. Carbon Pollution Emission Guidelines for Existing Stationary Sources* (23.10.2015) • *Proposed Federal Plan for the Clean Power Plan* (23.10.2015) • *Final Rule. Carbon Pollution Standards for New, Modified and Reconstructed Power Plants* (23.10.2015)	• *Presidential Executive Order on Promoting Energy Independence and Economic Growth* (28.03.2017) • *Letter from Administrator Scott Pruitt to Kentucky Governor Matt Bevin re Clean Power Plan Guidance* (30.03.2017) • *Withdrawal of Proposed Rules Federal Plan Requirements for Greenhouse Gas Emissions from Electric Utility Generating Units Constructed on or Before January 8, 2014* (03.04.2017) • *Review of the Standards of Performance for Greenhouse Gas Emissions* (04.04.2017) • *Review of the Clean Power Plan* (04.04.2017) • *Memorandum Executive Order 13783 Promoting Energy Independence and Economic Growth* (19.04.2017) • *Proposal to Repeal the Clean Power Plan* (10.10.2017) • *Under Executive Order 13783 Final Report on Review of Agency Actions that Potentially Burden the Safe, Efficient Development of Domestic Energy Resources* (25.10.2017)

Table 3
Regulatory subsection of the corpus: Obama's CPP and Trump's Repeal acts.

In order to investigate the argumentations exploited under the two US Presidents to support political choices, the lists of the most frequent words for the CPP and Repeal subcorpora were obtained and compared with the aid of *WordSmith Tools* (Scott 2014) *Keywords* utility. The log likelihood test was used, setting the p value on 0.000001 and the minimum percentage of texts on 38%. Among the words characterising the two subsections, the analysis of two terms typifying Trump's Repeal corpus appeared to be particularly revealing: *burdens* and *benefits* (see Table 4).

N	Key word	Freq.	%	Texts	RC. Freq.	RC. %	Keyness
1	CPP	194	0,68	5	61		993,08
2	REVIEW	127	0,44	8	340	0,05	310,17
3	EXECUTIVE	91	0,32	7	129	0,02	306,52
4	AGENCY	138	0,48	8	535	0,07	260,93
5	ORDER	112	0,39	7	399	0,06	225,75
6	DOMESTIC	44	0,15	6	28		193,53
7	RESCIND	28	0,10	5	1		174,37
8	PRUITT	25	0,09	6	0		163,38
9	BENEFITS	85	0,30	5	411	0,06	133,14
10	SUSPEND	22	0,08	6	4		121,76
11	POLICY	47	0,16	8	138	0,02	108,21
12	REFORM	22	0,08	4	9		107,12
13	REGULATORY	77	0,27	7	421	0,06	107,08
14	EPA	401	1,40	7	5.700	0,79	106,05
15	S	246	0,86	8	2.950	0,41	103,09
16	PRESIDENT	28	0,10	7	34		100,26
17	LAW	45	0,16	7	152	0,02	94,19
18	STATUTORY	41	0,14	4	128	0,02	90,63
19	AUTHORITY	68	0,24	7	391	0,05	89,74
20	U	93	0,33	6	697	0,10	89,49
21	RECONSIDER	17	0,06	4	5		87,90
22	BURDENS	21	0,07	7	17		86,30

Table 4
Keywords: Repeal Corpus against CPP corpus.

Through *SketchEngine Sketch Differences* tool, the grammatical and collocational behaviour of the noun *burden** in the two subcorpora was identified (see Table 5). The lighter grey-coloured collocates represent those more peculiar to the Obama corpus, while the darker grey-coloured words are more typical of Trump's texts.

As evident from Table 5, the most frequent verb preceding *burden** is represented by *impose* in the Obama CPP section, and by *reduce* in Trump's Repeal files. The concordance lines of *impose* with *burden** in the CPP rule corpus were obtained, revealing that the Obama-era law tended to insist on the fact that no significant further regulatory and information collection burdens would be placed on power plants with the new emission rule, as in "will impose minimal new information collection burden" (see Figure 10).

From the concordances for the collocation of *reduce* with *burden** in the documents supporting the Repeal proposal (see Figure 11), it appeared instead clear that Trump's administration discourse aimed at conveying the exact opposite idea. Trump-era documents state that the CPP did create *unnecessary regulatory burdens*, which obstructed the development of domestic energy resources, while the new modifications will aim to *reduce* them, alleviating such encumbrance.

verbs with "burden" as object	48	27	0.53	1.00
minimize	7	0	11.0	--
bear	2	0	10.2	--
put	2	0	9.9	--
experience	2	0	9.5	--
relieve	1	0	9.3	--
define	3	0	9.2	--
place	1	0	8.8	--
allocate	1	0	8.1	--
present	1	0	7.7	--
add	1	0	7.4	--
increase	1	0	6.0	--
have	2	0	5.9	--
impose	10	2	10.8	8.6
report	3	1	8.1	6.6
estimate	2	1	8.5	7.7
associate	3	3	8.2	8.2
regard	2	2	8.1	8.2
create	1	1	7.3	7.4
reduce	2	9	6.2	8.4
review	0	1	--	8.0
avoid	0	3	--	9.0
remove	0	1	--	9.2
face	0	1	--	9.3
ease	0	1	--	9.8
alleviate	0	1	--	10.0

modifiers of "burden"	79	29	0.88	1.07
administrative	5	0	10.2	--
minimal	2	0	9.5	--
disproportionate	2	0	9.4	--
estimated	2	0	9.2	--
annual	5	0	8.9	--
respondent	1	0	8.7	--
undue	1	0	8.7	--
lesser	1	0	8.6	--
reporting	2	0	8.4	--
great	2	0	8.1	--
corresponding	1	0	7.9	--
financial	1	0	7.9	--
less	1	0	7.7	--
direct	1	0	7.6	--
cost	2	0	7.6	--
environmental	2	0	7.4	--
substantial	1	0	7.4	--
reduction	2	0	7.4	--
significant	2	0	7.3	--
information	10	1	10.6	7.7
collection	10	1	11.5	9.0
unnecessary	5	11	10.7	12.9
regulatory	3	12	7.9	10.1
tremendous	0	1	--	10.0
potentially	0	3	--	11.5

Table 5
Sketch Differences: collocates of *burden** in the CPP corpus (lighter grey) against the
Repeal Corpus (darker grey).

captured carbon from an EGU due to the reporting and other regulatory burdens *imposed* by the monitoring requirements of GHGRP subpart RR.484 They
is acceptable, and use of the technology does not *impose* significant burdens on energy requirements at either the plant or national level. The 1,400
EGUs This final action will *impose* minimal new information collection burden on owners and operators of affected newly constructed fossil
This final action is not expected to *impose* an information collection burden under the provisions of the PRA on owners and operators of affected
EGUs are not anticipated to *impose* any information collection burden over the 3-year period covered by this ICR. We have estimated, however,
, this final action would *impose* minimal information collection burden on those affected EGUs beyond what they would already be subject to
in building block 2 would not *impose* significant additional burden on the transmission planning process and does not necessitate major
and, as a result, is not projected to *impose* a substantial cost burden on affected facilities. With respect to entrainment, the rule calls
, this action is not anticipated to *impose* any information collection burden on tribal governments over the 3-year period covered by this ICR. This
state having to submit a new SIP. This limitation *imposed* unnecessary burdens on states to fix even obvious errors, because CAA section 110(a)(2)

Figure 10
Sample of concordance lines for *impose* + *burden** in the Obama CPP section.

the development of U.S. energy resources and to *reduce* unnecessary regulatory burdens associated with the development of those resources. The President has directed

energy resources-including oil and gas-and to *reduce* unnecessary regulatory burdens associated with the development of those resources. The President has directed

the development of U.S. energy resources and to *reduce* unnecessary regulatory burdens associated with the development of those resources. The President has directed

safe development of our energy resources while *reducing* unnecessary regulatory burdens and directs federal agencies to undertake several actions to further this goal.

this review that includes recommendations for *reducing* unnecessary regulatory burdens . Through implementation of environmental statutes such as the Clean Air Act and

key initiatives that it believes will further the goal of *reducing* unnecessary burdens on the development and use of domestic energy resources. These initiatives

to re-examine how it engages with industry to *reduce* unnecessary regulatory burdens , improve regulatory forecasting and predictability, and improve the ability of

identified herein will advance the goal of *reducing* unnecessary regulatory burdens on the development and use of domestic energy resources in accordance with E.O.

the information that the Agency was collecting through these requests, and *reduce* burdens on businesses while the Agency assesses such need. EPA estimated the burden of the

Figure 11
Sample of concordance lines for *reduce + burden** in the Trump Repeal section.

The collocation of the term *benefit** was also analysed in the two subcorpora. In particular, the pre-modifiers of the noun were considered, since revealing of the major areas recipient of positive impacts. Table 6 lists the most frequent L1 modifiers of *benefit** in Obama's Clean Power Plan and in Trump's Repeal subcorpora, specifying for each word their absolute and normalised frequency in the subsection.

Obama's Clean Power Plan			Trump's Repeal		
Word	Freq.	%	Word	Freq.	%
climate	69	0.009%	forgone	23	0.075%
monetized	30	0.004%	net	16	0.052%
net	29	0.004%	climate	7	0.023%
health	23	0.003%	PM 2.5	6	0.020%
environmental	18	0.002%	air quality	5	0.016%
additional	10	0.001%	efficiency	4	0.013%
ecosystem	10	0.001%	health	1	0.003%
non-monetized	10	0.001%			
overall	8	0.001%			
CO2	6	0.001%			
economic	5	0.001%			
quantified	5	0.001%			
broad	4	0.001%			
carbon	4	0.001%			
social	3	0.000%			

Table 6
L1 modifiers of *benefit**.

It can be observed that, in the Obama corpus, *benefit** is mainly preceded by words referring to the positive impacts of the environmental law on nature (e.g. *climate*), people (e.g. *health*) and economy (e.g. *monetized*). Such advantages appear instead to be clearly understated in the Trump corpus, as suggested by the frequent collocation *forgone benefits*.

In particular, the text of the Repeal Proposal undervalued the relevance of mitigation acts, also by claiming that the actual benefits of the Clean Power Plan were still "highly uncertain". Conversely, the Trump administration capitalised on the fear that emission regulations may instead

damage the industry, thus leading to job loss. This would carry devastating results, especially in areas with limited re-employment opportunities. With a skilful rhetoric twist, the role of environment on human health was subordinated to occupational concerns, since "job loss may increase risks to health, of substance abuse, and even of mortality":

> With respect to the forgone benefits associated with this action, the EPA conducted a proximity analysis for the CPP which showed a higher percentage of <u>low-income and minority households living in proximity to EGUs that may have reduced emissions under the CPP</u>. These communities may experience forgone benefits as a result of this action. However, any changes in ambient air quality depends on stack height, atmospheric conditions, and dispersion patterns. Therefore, <u>the distribution of forgone benefits is highly uncertain</u>. […] Workers losing jobs in regions or occupations with weak labor markets would have been most vulnerable. With <u>limited re-employment opportunities</u>, or if new employment offered lower earnings, then unemployed workers could face extended periods without work, or permanently reduced future earnings. In addition, past research has suggested that involuntary <u>job loss may increase risks to health, of substance abuse, and even of mortality</u>. These adverse impacts may be avoided with the proposed repeal of the CPP. [underlining added] (EPA 10.10.2017)

4.5 The EPA news releases

The Trump administration's rewriting of the American environmental discourse also emerged from the analysis of the EPA new news releases about Climate and Energy policies. Through *WordSmith Tools* (Scott 2014) *WordList* function, the most frequent words in the reports were obtained. After having discarded function words and proper names, the corpus showed up four lexical groups of terms, referring to four main semantic areas: regulations, economy, energy and environment:

- Regulations: e.g. *executive order* (74 occurrences in the News Reports section, with a normalised frequency in the news releases subcorpus of 0.58%), *rule* (68, 0.54%), *regulation* (49, 0.39%), *Clean Power Plan* (44, 0.35%), *regulatory* (34, 0.27%), *repeal* (17, 0.13%), *Paris* (14, 0.11%).

- Energy: e.g. *energy* (70, 0.55%), *coal* (61, 0.48%), *gas* (32, 0.25%), *industry* (25, 0.2%), *resource* (17, 0.13%), *oil* (18, 0.14%), *electric* (15, 0.12%), *fuel* (15, 0.12%).

- Economy: *job* (35, 0.28%), *economy* (34, 0.27%), *cost* (23, 0.18%), *economic* (20, 0.16%), *business* (20, 0.16%), *miner* (15, 0.12%).

- Environment: e.g. *environment* (45, 0.35%), *protect* (27, 0.21%), *protection* (24, 0.19%), *emission* (22, 0.17%), *air* (21, 0.17%), *climate* (18, 0.14%), *water* (11, 0.09%), *greenhouse* (10, 0.08%).

Among the most frequent terms in the Trump news reports, it appeared interesting to consider the concordances for the term *environment* itself (see Figure 12).

on its intended mission, returning power to the states, and *creating* an environment where jobs can grow. "What better way to launch EPA's Back-to-Basics
'm committed to working in coordination with states to *create* a healthy environment where jobs and businesses can grow. That's the purpose of my
and local communities as we develop a path forward to *improve* our environment and bolster the economy in a manner that is respectful of and consistent
the capital that is spent on innovating new technologies to *improve* our environment even more. U.S. Chamber's Donohue Praises President Trump's
make sure that we transform our economy, grow jobs and also *protect* our environment . And it's an exciting day and I appreciate his leadership. I now have the
states' role and reinstating transparency into how we *protect* our environment ," said Administrator Pruitt. Background On March 28, President Trump
, good growth and pro-energy policies at the same time as *protecting* our environment . The president is sending that message today, by his signature today on
, Washington has sold a false choice to the American people: *choose* the environment or jobs. That false choice today gives way to a 'show-and-tell' story-
Administrator Pruitt to develop sensible policies that *protect* the environment without shutting down more coal-fueled power plants, one of our most
will continue to review these actions to ensure that they *protect* the environment and enable a growing economy. "EPA is continuing to ensure that the
alleged "Clean Power Plan" would've done virtually zero to *protect* the environment while at the same time destroying thousands of jobs and costing
gives way to a 'show-and-tell' story-about our ability to *protect* the environment and create jobs simultaneously-that manufacturers are eager to lead.
means returning EPA to its core mission: *protecting* the environment by engaging with state, local, and tribal partners to create sensible
, which aims to refocus the agency on its core mission of *protecting* the environment through sensible regulations developed in cooperation with state,
agenda. The Back-to-Basics agenda refocuses the EPA on *protecting* the environment , promoting economic and job growth, and returning power to the states.
language first and making room to discuss how we're *protecting* the environment and human health by partnering with states and working within the law."
regulatory certainty to American job creators while *protecting* the environment . Learn more here. News Releases from Headquarters EPA to Reconsider
We should not have to choose between supporting jobs and *supporting* the environment . Now, opponents of President Trump's new executive order claim that

Figure 12
Sample of concordance lines for verbs with *environment* as object in Trump News Reports section.

The close reading of the concordance lines about environmental stewardship (e.g. *environment* in collocation with *protect*, *improve*, *support*) reveals the exploitation of one of the President's typical discourses, part of his populist political agenda. As exemplified in his Inaugural Address (Trump 20.01.2017), Donald Trump tends to construe a bleak current scenario caused by his predecessor, which he contrasts with the brighter future he will provide to the nation (see also Napolitano 2018). Similarly, concerning environmental and energy policies, Trump-era texts stress that, while Obama had chosen global environment over American jobs, the current Presidency will instead combine environmental safeguard with economic growth.

A rhetoric similar to the one identified for the term *environment* appears to be exploited in Trump's EPA news reports when another key term of environmental discourse, the noun *climate*, is used. As evident from Figure 13, such word does not seem to express involvement for natural concerns but to convey the idea that previous emission cuts under the Clean Power Plan and Paris Agreement were harmful for the US economy, especially for the coal sector, while showing no meaningful impact on the environment. The present administration is instead presented as acting in the national interest by revoking such regulations.

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energy executive order that will restore sanity after Obama's failed climate policies. "I commend President Trump for sending this flawed
coal industry applauded an executive order starting a roll back of climate regulation signed by President Donald Trump on Tuesday. Lignite
in place, these regulations would have little positive impact on our climate while continuing to decimate West Virginia's economy," U.S. Rep.
. The previous administration, with every step they took in their climate action agenda, still fell 40% short of those 26 to 28% targets. What the
PRUITT: "When the Paris Accord was cut, the head, father of climate science, James Hanson, former NASA scientist, called the Paris Accord
on two and half trillion dollars in aid that would pass through the green climate fund. . . ... This whole process in Paris was all about talk. The previous
administration's analysis of CPP include: Domestic versus global climate benefits: The previous administration compared U.S. costs to an
on Thursday, April 13. A photo ID is required. R056 United States Resets Climate Change Discussion At G7 U.S. Formally Joins Communiqué, Reaching
withdraw from the Paris Agreement and has reset the conversation about climate change reflective of the new priorities of the Trump Administration
allies and key international partners, we approached the climate discussions head on from a position of strength and clarity. We are
. While a party to the communiqué, the United States did not join the climate change sections, explicitly stating: We the United States of America
, we the United States do not join those sections of the communiqué on climate and MDBs, reflecting our recent announcement to withdraw and
, and European Commissioners responsible for environment and climate , met in Bologna on 11-12 June 2017. We were joined by heads and senior
Order rescinds several Obama executive orders and policies related to climate change. It also directs the Administrator of the Environmental
the last administration, is out of date. Similarly, content related to climate and regulation is also being reviewed. News Releases from
West Virginia's vital coal industry while having no meaningful climate impact. Stopping this disastrous plan will preserve America's coal
, who would be hardest hit by the previous administration's harmful climate regulations. Americans depend on affordable, reliable electricity
the process to unwind the CPP, the Obama administration's signature climate change regulation that was stayed by the Supreme Court one year ago.

Figure 13
Sample of concordance lines for *climate* in Trump News Reports section.

The news reports analysed often contain portions of Administrator Pruitt's public interventions. Incredibly enough, in his rhetorical justification supporting the annulment of environmental commitments, Pruitt even (mis)quoted an authoritative source. Pruitt said James Hansen, the "father of climate science", called the Paris Agreement a 'fake' and a 'fraud':

> When the Paris Accord was cut, the head, father of climate science, James Hansen, former NASA scientist, called the Paris Accord a fake and a fraud. (Pruitt 06.06.2017)

Hansen's words would thus seem to echo a 'Trumpist' language, a support for the new President's policies and climate denial discourse (see also Paragraph 1). Yet, Pruitt actually conveyed this external opinion in a distorted way. As a matter of fact, the scientist had not opposed the mitigating policies but only the slow pace of Paris emission cuts. Against Trump, Hansen even acknowledged his government was "in the pocket of the fossil fuel industry":

> Governments that say climate change is a problem and then propose half-baked solutions that don't solve anything are in some ways a bigger problem than the Trump-type governments. With those, everybody got to see what they were doing and that they were in the pocket of the fossil fuel industry. (Hansen in Özbek 10.11.2017)

5. Preliminary conclusions

Climate change constitutes one of the major challenges of our time, requiring urgent action, especially due to the fast pace and global scale by which

greenhouse gases are accumulating in the atmosphere. The United States, one of the world's major emitters, had recently shown a particular interest towards sustainable development and climate change mitigation. Regrettably, the current US President is overturning much of the past progress. Donald Trump is exploiting a climate sceptical attitude to promote a business-oriented political agenda, based on the idea that environmental concerns have led previous governments to neglect human needs, while the present administration will put American interest before environmentalist extremisms.

The present study analysed a diversified collection of environmental documents published on institutional US websites, comparing texts from the Obama's era with those produced during Trump's administration. It explored the publications through a framework integrating CDA and corpus linguistics, focusing on how scientific information was selected and communicated, which authoritative sources were quoted and which arguments were exploited to sustain political decisions.

Obama's environmental discourse displayed a clear and continued effort towards sustainable development. The former President showed respect and support for acknowledged international research, which was proficiently popularised for the general public, trying to engage Americans in sustainable behaviours. Scientific knowledge represented a guide for concrete policies aimed at reducing greenhouse gas emissions, revealing a commitment for the domestic fight against climate change at home and a wish to transfer the traditional American appeal for international leadership also to the environmental field.

The texts produced under Trump's administration reveal instead a strong aversion and opposition to Obama's policies. The current President discredits the importance of ecological preoccupations and shows a disdainful underestimation of climate issues. Scientific integrity is being abused and relevant information is being cancelled from official websites. The most recent documents display the President as trying to manage the US like his own company, following a 'shareholder approach' for which the only social responsibility of a business seems to be "to increase its profits" (Friedman 13.09.1970). Trump appears to consider the environment as functional to economic goals and nature as a source of goods, not a resource to be preserved for future generations (see also Stibbe 2014). The rhetoric of *America first* and *Back-to-Basics* 'no-frills' plans would thus leave no space to the expression of environmental values. The communications analysed seem to construe an ill antithesis between the environment and the people. An anachronistically irresponsive exploitation of nature seems thus to be justifiable if the purpose is to create jobs, overcome the crisis and promote popular well-being.

The present study represented a preliminary research on the rewriting of the US climate discourse. At the time of writing, governmental websites are still being updated and adapted to Trump's ideology and priorities. It would thus appear interesting to expand the analysis by considering the new developments and changes enacted by Trump which are expected to further dismantle the US environmental discourse and policies.

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