

Use case: Language Polarization in the Comparison of Climate Change and COVID-19 Crises

Overview

After the outbreak of the Covid-19 epidemic in China in early 2020, and the subsequent quick, exponential spread throughout the country and abroad, attention has started to be diverted from other urgent issues humanity is facing, such as the climate emergency. Interest turned toward the coverage of the novel coronavirus.

The existence of a relationship between climate change and the novel coronavirus became a topic of discussion in the news media approximately a month after the outbreak in China. As industrial activity and travel in China were halted at the end of January, a reduction in the air pollution over the territory was observed the following month. Similar effects were observed and reported in Europe a short while after Italy was put under lockdown. This elicited our attention, as the two phenomena are both critical, but their perception is quite different due to apparent immediacy or lack thereof.

In our global news feeds, the relationship between the novel coronavirus and climate change is definitely causal, but it is represented in several different ways:

- Halting travel within, to, and from China and closing production factories to minimize the spread of the virus led to a decrease in the emissions of carbon dioxide, which might be accidentally slowing climate change (the same for Italy).
- Climate emergency might but should not be neglected despite the virus being considered the actual emergency at this time. While they are two different situations, both can be stopped/slowed by taking action. Political and community action for the management of the novel coronavirus is a lesson for how climate change can be addressed.
- Although economies around the globe are contracting as the virus brings the world to a halt, and thus carbon emissions decrease, hopes for a climate aware future and for a Green Deal are not very high. National economies, such as China, that are obligated to slow down will only increase their activity and desire for growth once the health crisis is overcome, and greenhouse gas emissions will sky-rocket. This is called retaliatory pollution.

Goal

At Prisma Analytics, we believe that language is the DNA of social moods and the way it is used has a causal role in collective attitudes and group emotional dynamics. Both climate

change and COVID-19 are systemic crises, but what differentiates them is the time span in which effects are acknowledged and even suffered by their subjects. In the following pages, we explore the polarization of language in news and opinion articles that compare the climate change crisis to the coronavirus crisis.

Procedure

Descriptive linguistic analysis with the Circumplex of Social Energies, discursive thermometers, and a qualitative observation of language in news from our databases that mentioned both coronavirus and climate change between 25 February and 20 March 2020 shows that there is a causal chain that connects the two crises. However, unlike initially expected, language polarization occurs not at the ends of the chain or connection, but in between, shedding light on indirect causalities that have a cascading effect.

Analysis

The Circumplex of Social Energies

The most active social energies on the circumplex are Escalation, Power, and Hope. This is the first indicator that the co-mention of climate change and coronavirus holds a key to how humanity responds to obvious crises. The dominant energies in reporting on COVID-19 are Fear and Escalation, which have profoundly affected the stock market during December 2019- March 2020.¹

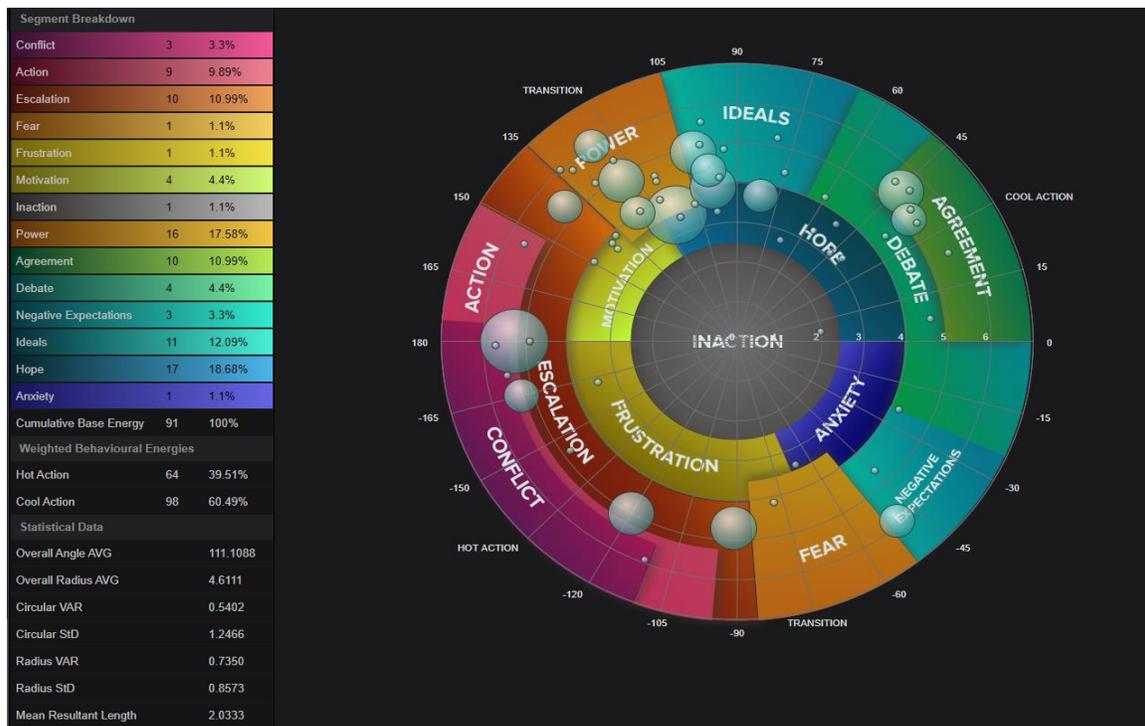
	Conflict	Action	Escalation	Fear	Frustration	Motivation	Inaction	Power	Agreement	Debate	Neg. Expectations	Ideals	Hope	Anxiety	Hot Action	Cool Action
02-26-20	10	28	44	10	14	19	27	42	24	19	25	33	37	9	245	315
03-01-20	0	0	8	0	0	0	2	4	0	4	1	1	4	3	16	23
03-02-20	3	9	10	1	1	4	1	16	10	4	3	11	17	1	64	98
03-04-20	1	5	5	0	0	0	1	3	0	1	1	1	1	0	29	8
03-05-20	0	2	11	1	1	0	1	2	1	0	3	4	4	2	29	24
03-06-20	8	11	34	12	4	11	11	25	7	3	13	9	27	6	148	114
03-07-20	3	14	12	10	4	4	5	15	2	8	2	6	27	0	86	75
03-09-20	0	1	8	2	15	4	9	13	4	16	5	6	23	1	38	110
03-10-20	9	10	20	6	7	6	11	21	5	8	6	9	15	1	119	90
03-11-20	3	6	8	3	5	1	3	5	1	0	0	1	5	1	52	12
03-13-20	0	11	29	5	2	6	5	10	3	10	5	6	14	8	99	86
03-15-20	4	8	10	0	2	6	2	9	10	3	6	4	17	2	68	88
03-18-20	0	6	6	2	1	3	6	8	3	0	1	5	6	1	34	31
03-19-20	0	1	16	0	0	3	4	6	3	6	1	7	5	1	38	52

↑ Circumplex of Social Energies, COVID-19, coronavirus, SARS-CoV-2, climate change, global warming, climate emergency query, 25 February - 20 March 2020

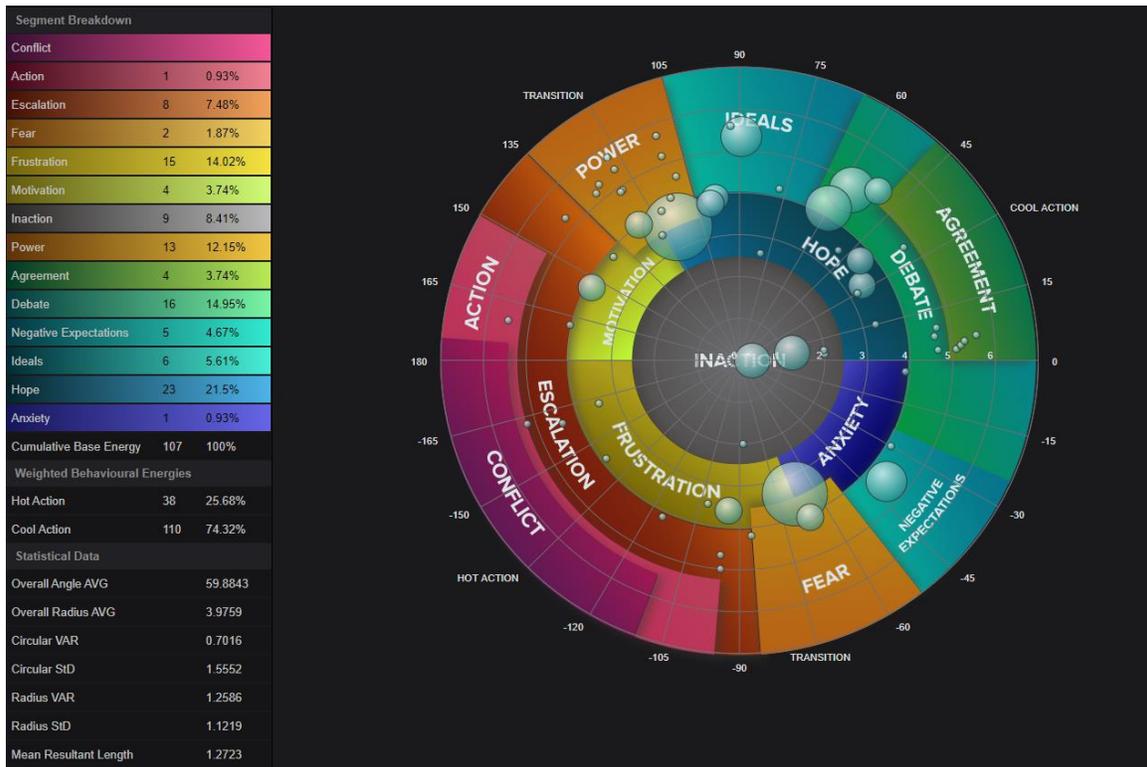
¹ A Prisma Analytics report on this issue is available on request.

Escalation language: disruptions, ripple through, severe, sobering, dramatic, extinction, trauma, threatening, suffer, unfortunate, concern, worried, turmoil, ever-worsening, grim, disaster, vanish, aggressive, lost, hit, emergency, sacrifice, deadly, misery, suffering, lethal, deaths, shutdowns, crash, inevitably, terrifyingly, unavoidable, catastrophes, climate brutality, eco-fascism, degradation, exclusion, death, dying, panic, radical ideology, poverty, eliminate, damage

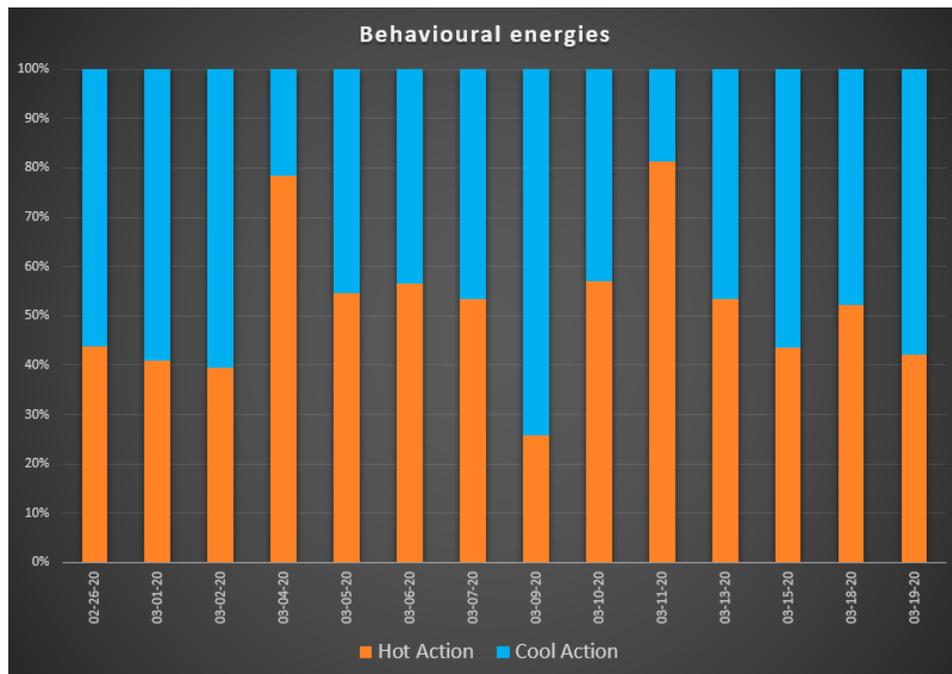
Hope language: celebrate, ambitious, significant, protection, safeguarding, fight, optimism, motivates, cooperating, pace, coordination, preparations, reduce, growth, stability, hope, livable, blessing, benefits, innovative, support



↑ Circumplex of Social Energies, COVID-19, coronavirus, SARS-CoV-2, climate change, global warming, climate emergency query, 2 March 2020



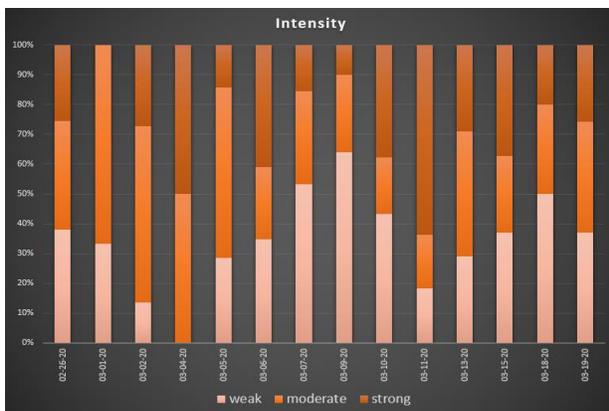
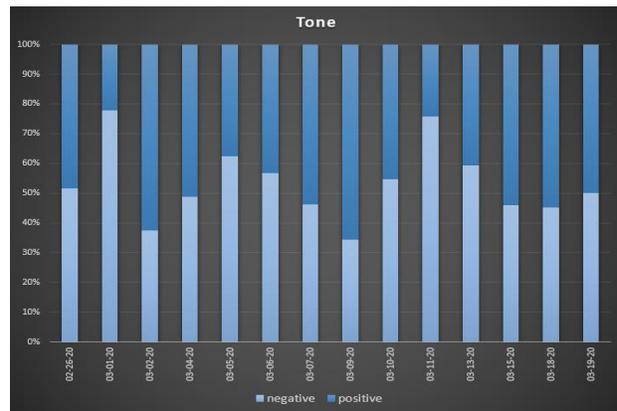
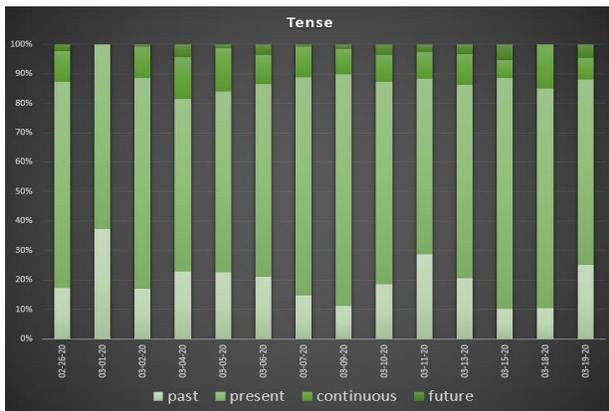
↑ Circumplex of Social Energies, COVID-19, coronavirus, SARS-CoV-2, climate change, global warming, climate emergency query, 9 March 2020



↑ Circumplex of Social Energies, COVID-19, coronavirus, SARS-CoV-2, climate change, global warming, climate emergency query, 25 February - 20 March 2020, Hot Action versus Cool Action

Hot Action and Cool Action are quite balanced. Our previous analysis of COVID-19 coverage showed that Hot Action is dominates around 70%² of the discursive space, an indicator that mentioning climate change in efforts to report and understand the coronavirus crisis has a moderating effect, shifting collective attitudes towards less immediate action and more learning and modeling.

Discursive thermometers



Discursive thermometers measuring Tense, Tone, and Intensity of discourse, COVID-19, coronavirus, SARS-CoV-2, climate change, global warming, climate emergency query, 25 February - 20 March 2020

The dominant tense in the coronavirus-climate change comparison is present. This is due not only to the fact that COVID-19 is still spreading at the time of writing - as it was at the time of data collection and analysis - but also due to a shift in focus regarding climate change. Until the intense and immediate crisis of coronavirus affected livelihoods, governments, and economies, climate change was generally considered a matter of the future. Politics, topics, persons, effects were regarded as belonging to a relative future - either quite immediate, or long term. This representation and perception transform the

² See previous note.

issue of climate change into a slow, dragging process which seems to lack relevance in the present. But the global health emergency generated by SARS-CoV-2 indirectly impacts this representation. As the complex health crisis is still unfolding, the intensity of the comparison is quite moderate, and the tone equally oscillates between positive and negative. This strengthens the previous observation that the co-mention coronavirus-climate change is balanced between Cool Action-Hot Action, as if humanity is still undecided, but willing to observe. In climate change's long history, now very slowly shifting towards emergency, this is a strikingly important moment, as our language-oriented technology indicates social energies are accumulating to the edge where systemic transformation begins.

Lexical polarity

Our initial expectation for how climate change and coronavirus are mentioned together was that they would be polar opposites, with coronavirus being urgent, disastrous, immediate, and climate change being slow, long term, secondary. But language analysis reveals a causal relationship between the two, described in terms of "fall," "drop," "dip," or "reductions" in China's "sky-high" carbon emissions observed since the outbreak of the virus, as certain activities saw a "decline" meant to contain the spread. Such phenomena were previously noticed in China around the New Year holiday, but, in the past, pollution levels were observed to "increase," or "rise (again)," when the economy would also normally "spring back to life," unlike this time. However, although such dips caused by disruptions are depicted as "significant" or "dramatic" given the levels of pollution in China, they are not considered as reasons "to celebrate." The Covid-19 pandemic is actually described as a "bad" thing, along with other crises that have led to a temporary reduction of carbon emissions in the past, such as the 2007-2009 global recession. They could still "hinder" the country's battle with climate change and make it "harder," rather than "easier" to "tackle." Thus, while the crisis generated by the virus is presented as having an accidental, somewhat positive effect for the climate, its effects on the economy are thought to worsen the situation in the longer term. While the virus is presented as a "threat," it is even considered to be "threatening" to the actions taken regarding climate change.

The media portrays the outbreak as China's "top priority" as it affects China's economic "growth," while the climate related issues are thought to have been moved to "a back seat." Moreover, governments are portrayed as being "distracted" from environmental issues, as their "attention" is turned towards the pandemic and its economic consequences.

the contrary, the language that describes their properties is polar in itself - coronavirus is equally a disaster and a lesson, while climate change is equally ignored and raising awareness. What is valuable in these media discourses that we analyzed is that moving the compass in the polar language that describes these two crises is only possible through a very aggravated language that describes the global context. In other words, climate change and coronavirus can be operationalized as equal parts of a feedback loop because they affect and are affected by underlying, but globally relevant, systemic variables, such as economic growth, fossil fuel-based industries, carbon emissions, and a timid idea of a Green Deal. The criticality of coronavirus presents itself as an endurance test for the global mechanisms of our societies, maybe even civilizations, and might also hold the key to how humanity can integrate climate change into its present and its future.