On Interpreting "Code Red" and "Existential Threats"

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As the 26th Conference of the Parties of the United Nations Framework Convention on Climate Change comes to a close in Glascow with underwhelming results, people all over the world are opining about their disappointment. This might be an appropriate response, but it needs to be directed, organized, and framed into temporal and geographic context. To promote those properties, I first offer a metaphor and then some nuanced definitions of language that can better be used and therefore understood.

First, the metaphor.....

Imagine that you are driving a bus containing the world's population (a very big bus! — with LOTS of momentum!) down a highway at a very rapid rate of speed. You see a sign for an upcoming rest stop labeled 1.5°C. The advertised facilities look very nice, but you are going way too fast to take the appropriate exit. You blow past the last 1.5°C sign with regret, but you understand that stopping there had always been aspirational. Missing the last exit for this rest stop was disappointing but not a global disaster. Some people on your bus get really annoyed, but you know that there are more rest stops down the road.

You are likely still driving too fast when you reach the 2.0°C rest stop. It looks like a nice facility. Not as good as 1.5°C, but you knew it was coming up. You could have braked harder, but your momentum (big bus with lots of momentum, remember) made it impossible to take the exit. Pulling into that rest stop would have been an enormous accomplishment. You are disappointed, but you know that there are more stops ahead.

If you slow down prudently, turning off to the tolerable 3.0°C rest stop is feasible, especially if you had begun applying the brakes when you were blowing past the 1.5°C exit. Don't rest on your laurels. It is not guaranteed unless you continued to brake – hard – through the 2.0°C exit.

If you miss 3.0°C, of course, there is another much less attractive rest stop at 4.0°C. It would not be a catastrophe for *many* of your passengers, but there are ubiquitous risks for all – and very little food.

Before turning to the language, let's just assert that your trip did not lead to a "Thelma and Louise" exit strategy. Just driving off the cliff even past 4.0°C is not an option. Keep pumping the brakes as hard as you can.

Now for the language.....

If blowing past the various rest stops in the metaphor would not be the end of humanity, then how can we justify terms like "code red" from the United Nations or "existential threat" in the face of destructive criticism? Very carefully.

Take the "code red" characterization of the latest contribution from Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [A]. In the firehouse or hospital language that is its origin, "code red" means that an emergency has been detected and quick response is required.

We have detected that the planet is warming [B], that human activity is predominately to blame [C], that extreme events are becoming more likely and more extreme [D], and that they are piling up [E]. The alarms have gone off. It is an emergency. Response is necessary. The planet is literally burning down in places. Responders must respond.

Then there is the term "existential threat". Really? Is this not hyperbole? To many, existential threat means the end of humanity – extinction like what happened to the dinosaurs. Many years ago, my then very young daughter wrote in a school assignment: "They all died and then they stinked." Both statements are true. Asteroids or volcanoes or something else global (like a virus?) clearly became existential threats for dinosaurs.

Today, warming oceans with increasingly acidity are existential threats to coral reefs all across the planet. Today, rising seas are existential threats to small island states. And so on. Statements like this cannot be denied, either.

But neither COVID-19 with its variants nor climate change with its myriad of increasingly frequent and intense impacts are existential threats to the *entirety* of the human race. After all, the human race survived the 1918 Spanish Flu pandemic without modern knowledge about mitigation and adaption.

It is possible, though, to offer a more nuanced version of the standard definition of an "existential threat" – "A threat to something's very existence. [F] To be germane for human beings and communities in today's climate, I suggest: "An external and global source of stress that creates geographically distributed events which can put random people in mortal danger wherever they live. [G]

COVID-19 is currently an existential threat under this definition. How so? Because the delta variant was, in the summer of 2021, infecting five people who live somewhere on the planet in less time than it takes you to read this sentence. Moreover, one person would have died from the virus before you finished reading this paragraph. [H] In short, COVID was, and still is in the fall of 2021, an existential threat to *any* human being who lives on the planet to a degree that

depends on where he or she lives, the color of his or her skin, his or her material wealth, and whether or not his or her local community is close to being fully vaccinated.

As well, we know that climate change is currently posing as an existential threat for anybody who lives anywhere on the planet because of fires, heat, floods, drought, and other extreme weather. How so? Because climate change will unnecessarily kill 85 of every 100,000 people on the planet every year – mostly in Africa but really on every continent except Antarctica. That means that 18 people living somewhere on the planet will die from a climate impact before you finish reading this sentence [I]. Surely, climate change is an existential threat in this probabilistic sense to anyone breathing air someplace on earth.

Returning to the metaphor, it is critical to recognize that all of these risks are current. That is, just before the we miss exiting on the 1.5°C rest stop and a decade (plus or minus a year or two) before we blow past the 2.0°C rest stop, climate change is *already* killing people. Therein lies the urgency. Every hour, 100 people die from an impact that can be attributed to climate change. And therein lies the justification for declaring a global "CODE RED". Existential threats to real people are already real.

Links:

- [A] https://apnews.com/article/asia-pacific-latin-america-middle-east-africa-europe-1d89d5183583718ad4ad311fa2ee7d83
- [B] https://yaleclimateconnections.org/2020/09/evidence-shows-the-planet-warming-on-average-at-an-increasing-rate/
- $\begin{tabular}{l} [C] $https://yaleclimateconnections.org/2020/09/the-evidence-is-compelling-on-human-activity-as-the-principal-cause-of-global-warming/ \end{tabular}$
- [D] https://yaleclimateconnections.org/2020/10/extreme-events-presage-worse-to-come-in-a-warming-climate/ and https://yaleclimateconnections.org/2020/10/extreme-events-presage-worse-to-come-in-a-warming-climate/ and https://yaleclimateconnections.org/2021/09/never-before-nb4-extreme-weather-events-and-near-misses/
- $[E] \ \underline{https://yaleclimateconnections.org/2020/10/multiple-extreme-climate-events-can-combine-to-produce-catastrophic-damages/} \\$
- [F] https://www.realcleardefense.com/articles/2016/02/10/what_is_an_existential_threat_109009.ht
- [G] https://thehill.com/opinion/energy-environment/565698-climate-change-and-covid-19-understanding-existential-threats
- [H] https://www.who.int/heli/risks/climate/climatechange/en/
- [I] https://time.com/5876229/climate-change-death-rate/